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Ogle, C. L.  
1923.

This is an adequate survey with some very interesting criticisms and recommendations. The author has evidently considered his data from the standpoint of an impartial critic and has suggested some very pertinent and pointed recommendations.















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A SANITARY SURVEY

OF

WICHITA

in the

STATE OF KANSAS.

By, -

Clairel L. Ogle., Jr.  
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JUN 1923

Respectfully Submitted to

The Department of Preventive Medicine and Hygiene

Harvard Medical School,

Boston, Massachusetts.

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May, 1923.

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## PREFACE.

The compilers of this material, Mr. Howard D.H. Brown and myself wish to express our appreciation for the courtesies extended to us, and our reception by, the Wichita Department of Public Health. Our thanks are especially due to Director M. O. Nyberg, M. D. ---his granting of Deputy Health Inspector Badges greatly facilitated the inspections and increased the scope of the work.

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## Explanatory Note.

Mr. H. D. H. Brown and myself undertook the task of surveying the City of Wichita together for the following reasons: we were motoring from Boston to Wichita and return, together; and he had formally been connected with the Health Dep't. and he "knew the ropes"--thus greatly expediting our work.

The Introduction and the first part of the work was completed in June; the Inspections in part were to have been completed in Sept. upon my return from Oregon. Due to a strike on the Santa Fe Railroad, 5 days which I had set aside for that purpose was reduced to 1--Mr. Brown having to complete the work alone; he thus deserves the major credit for the work.

Also in regard to the "Critisms and Recommendations", Mr. Brown expecting to make Wichita his home in the future had to use considerable tact in this matter; while I not so incumbered was more pointed and drastic.

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# .....HISTORY.....

More than a century before The Pilgrims landed at Plymouth, white men had visited this area. In 1541 Coronado's route took him to the junction of the Arkansas and Little Rivers. In this fertile prairie--one of the chief Indian hunting grounds--the Spaniards found neither gold nor the "fountain of youth" and laid no claim to this region. Another century elapsed before it was again visited by white men.

The first goods ever transported by white men over Kansas soil were carried from American settlements east of the Missouri River to Santa Fe by Baptiste Le Lande in 1804. In 1822 the Santa Fe trade was well under way; the Santa Fe Trail projected; which remained the main artery of travel until the building of the Atkinson Topeka and Santa Fe Railroad.

The Wichita, the Osages and many other tribes of Indians found this area a convenient meeting place not only for themselves but also for meeting traders and governmental agents. Here in 1862 a treaty was made between the United States and the Wichitas, Cheyennes, Arapahoes and other tribes. "Kit" Carson, Gen. Harney and Col. Dent acted for the government. As early as 1860, Wm. Mathewson, the original "Buffalo Bill," freighted thru this region and in the year of the treaty settled on a claim near the townsite.

The Wichita tribe of Indians, from which the city takes its name was a branch of the Caddoan tribe of Northern Mexico, descending thru the Pawnee tribe which migrated from Mexico and settled near where the town of Pawnee, Oklah. is located. A division of the tribe resulted in one band moving into the territory near the present site of Wichita Falls. During the Civil War they came to Kansas, settling in this region, not far from Riverside Park. Their homes consisted of cone shaped houses of poles thatched with grass. In 1867 a cholera epidemic played havoc with the tribe. The same year the government issued orders for the tribe to return to its original home in Indian Territory. Most of those that escaped the epidemic died on the trip, so that at present very few of the tribe remain.



The first white settler in Sedgwick County was A.C. Arnold in 1857. The 1st settler with a family was John Ross in 1860. A trading post was est. here in 1863 by James Mead. Mrs. Wm. Mathewson was the 1st white woman on the ground where the city now stands. In the spring of 1864 the Wichita Indians removed from Woodson County and est. a camp at the mouth of the Little Arkansas River where they remained untill removed in 1867.

Sedgwick County was named in honor of Maj. Gen. John Sedgwick and the act est. the county was approved Feb. 26th, 1867. In July 1868 a military post office was est. and in Nov. the first election was held - 30 votes were cast. Wichita was chosen county seat. The 1st official act of the county commissioners was to grant a license for a saloon. Sedgwick Hoover was the 1st white child born in the county (1869), Frank Allen the 1st within the city limits (1870). The 1st marriage in 1869. A hotel was opened in 1870.

In Mar. 1870 platss were filed constituting the village of Wichita. Before this most of the village had been located north of Central Avenue near the Little River. Since then the growth has been south. In July 1870 Wichita was incorporated as a town and in April 1871 made a city of the 3rd class. In 1872 it became a city of the 2nd class. A bridge was constructed across the Arkansas River at the west end of Douglas in this year at a cost of \$27100.

The 1st law office and bank, newspaper and church were opened in 1870. The latter built by the Episcopalians consisted of an abode with a dirt roof - the light being admitted by two small aperetures cut high up on the end wall. The roof bloomed in summer while the wind creaked thru the dead grass and sun flower stalks in the winter.

In May 1872, the Wichita & Southwestern Rail Road, a branch of the Santa Fe was completed into the city from Newton and Wichita became the headquarters of the Kansas cattle business. Many came from Texas as well. 350000 head of Texas cattle was driven into Sedgwick county that year and 3500 car loads were shipped from here. The town was wide open and consisited principally of saloons, and gambling houses and all that went with them. The Board of Trade was organized in 1873. In 1876 the cattle trade was transfered to Dodge City



and with it went a large part of the "wild life" and soon after Wichita settled down to an entirely different moral plane.

In 1881 Wichita was a poorly built and unattractive city of 50000 people. It's approximate growth was as follows:

1870	50	1886	20121
1880	5482	1887	31769
1882	8005	1888	39068.
1885	16019		

Water works were installed in 1882 and in 1887 "was removed and placed upon an island in the Arkansas River, near the mouth of the Little Arkansas, where an inexhaustible supply of pure water is obtained by driving down pipes a distance of about fifty feet in sand, etc., taking in the water after it has passed the natural filter". The company, in 1887, expanded and expended \$350000 and laid nine miles of wood pipes and the water was described "as very clear pure and sweet and pronounced unsurpassed by any city in the country". Rather a modest little boast.

The Coronado Club, later the Commer. Club was organized in 1897 and the Chamber of Commerce in 1901. There was 100% inc. in population between 1900 and 1910, and like all American cities thrived in 1914--1918 and due to the discovery of the Eldorado Oil Fields did not suffer to any marked extent during the depression that prevailed following the war.

#### .....GEOGRAPHICAL POSITION.....

Wichita lies in long. 97° 17' W. and latitude 37° 40' N., on the Arkansas River, 213 mi. S.W. by rail from Kansas City, 145 mi. from the eastern border of the state, 263 mi. from the western border, 47 mi. from the southern border and 161 mi. from the northern border. It is the county seat of Sedgwick County. The center of the county is 129 mi. on an air line from Topeka, 185 from Hutchinson, 190 from Kansas City, and 145 from Fort Scott.

#### .....TOPOGRAPHY.....

Kansas is a part of the central prairies of the United States. It's surface rises gradually from an altitude of 750 ft. on the east to 4000





on the west, with an average of 1800 ft. There are no eminences above 500 ft., the surface on the whole being a gently rolling prairie. Nearly all the rivers drain eastward and the drainage is so perfect that there are few lakes and marshes. In the north half of the State the drainage is via the Kansas River and its tributaries which joins the Missouri River at the northeast corner. The Neosho drains the southeastern portion of the State, flowing mainly south. The Arkansas with its tributaries drains the eastern two-thirds of the State. In the western part of the state the flow is mainly east but near Great Bend, the river turns to the south east, crosses Sedgwick County, and leaves the State at its southern boundary.

Sedgwick is about equally divided between high and low land. The average widths of the "bottoms" is five miles. The principal drainage is via the Arkansas River a wide, shallow, but swift stream which enters the county at the northwest corner, leaving at the southwest. At places a large part of the river is hidden in the sandy subsoil, the width of the valley is thus very variable. The Little Arkansas enters the county on the north line, runs almost south and empties into the larger stream at Wichita. In addition there are several smaller rivers and creeks.

The City of Wichita lies in the valley of both rivers, these joining at Osage Ave. and 2nd St., west of the business district, the surrounding regions being characteristic of the lowlands of the middle section of the state. The residential sector on College Hill is the only portion of the city outside the valleys. College Hill is the first of a series of low hills east of the city. The slope to the south is very gradual down the Arkansas valley; this is made use of in the gravity sewers.

#### .....CLIMATE.....

The climate of Wichita, and Kansas as a whole, is continental owing to its location. The rainfall is due to the great areas of low pressure which cross the state from west to east. The state is quite windy, the northern part being in the famous "cyclone belt". The prevailing winds are from the north





east in the winter and from the south in the summer. The air is clear and sunny days predominate. The winters are said to be generally mild and dry but severe ones do occur. In summer the temperature is usually high during the day and their so-called "invariably cool night" were a night as long as I was there. The mean annual temp. is 57.5F. The mean Jan. temp. is 30, with 20 below as the record cold. The mean July temp. is 79, the highest recorded being 107. The mean annual rainfall is 30.6 in., most of this falling in the early summer. The following is given for comparison:

City	Rainfall	Temperatures.			
		Jan. mean.	Jan. Low.	July mean.	July highest.
Portland, Ore.	43.4.	39.	-2	66.	102.
Wichita, Kans.	30.6.	30.	-22.	79.	107.
Boston, Mass.	45.1.	27.	-14.	71.	104.

#### .....GEOLOGY.....

The surface geology of the entire state is single since the strata lie generally undisturbed and horizontal. Hence the outcropping of the strata of the main systems forms broad belts over 100 mi. broad roughly dividing the state into three divisions north and south. The eastern belt consists of the Carboniferous system composed of numerous layers of sandstone, shale, limestone, and clay with a heavy seaming of coal. The central belt, in the north, consists of Cretaceous rocks and in the south (Wichita sect.) of the Jura-Triassic Systems. The western one third of the state is covered by the Neocene or Upper Tertiary Systems. With the exceptions of the Wichita region, the formations of the entire state are horizontal. The main coal producing belt lies in the center of the state and natural gas and petroleum are found in the south-center and eastern sections, which are underlain with sandstone and the formations of the Carboniferous Period. The western and northern parts of the state are the typical "alkali counties" and are continuous with the Black Hills of Nebraska and the prairies of Wyoming. Sedgwick county therefore has a sandy soil underlain with quantities of oil and gas.

#### .....POPULATION.....

The U.S. Census for 1910 gave Wichita a population 52450, in 1920



72217. Interpolating these figures to reach July 1922 we arrive at the figure 74652. Wichita has been "booming" for the past five years and an electoral census taken between March and May 1922 place the population at 83232. The rise of the Eldorado and Parsons oil fields play no small part in maintaining the city's "boom".

In 1920, 3021 of Wichitas population were foreign born. These were distributed as follows: Mexican, 797; German 607; English 300; Canadian 237; Irish 174; Swedish 110. The others were scattered thru all the other peoples that emigrate to this country.

The city is 20.84 sq. mi. in area giving a density of 35.8 per sq. mi.

#### ..... ORGANIZATION OF THE BOARD OF HEALTH .....

From the incorporation of the city in 1871, one of the councilmen was designated as head of the Health Dep't. and had supervision over all matters pertaining to public health. In 1880, a city physician was appointed on a part time basis and in 1907 on a full time basis. Under the present Commission form of government, the City Physician, as head of the Dep't. of Public Welfare, is accountable to the City Manager and the latter in turn to the City Commissioners. The officers and subordinates of the Dep't. and their annual salaries are as follows: Director of the Dep't. (must be an M.D.) \$3500; Bacteriologist, \$2400; Quarantine Officer, \$2100; Sanitary Officer, \$2100; Milk Inspector, \$2100; Sanitary Officer and Inspector of Weights and Measures, \$2100; Food Inspector, \$1680; Dep't. Sec., \$1200; Supt. Municipal Farm, \$1200; Head Dump Man, \$939; Office Asst., \$780; Cook at Municipal Farm, \$720; 2 Lesser Dump Men @ \$626 each; Wichita Public Health Nursing Ass'n., for clinic work, \$600; Matron at Munic. Farm, \$600; Lab. Asst., \$390.

The duty of each may be judged by their titles and will be gone into more thoroughly as the survey progresses.

#### ..... OTHER INFORMATION ABOUT WICHITA .....

Commission Form of Gov't.

Five years ago the city adopted the Commission form of Gov't.





A comparison of the budget with that of Topeka will illustrate the working of this form of Gov't. The latter has 52000 population.

Department.	Wichita.	Topeka.
Police. . . . .	187670	90232
Fire. . . . .	159457	143355
Streets & Sewers. . . . .	114000	124000
Engineering. . . . .	30000	11071
Health. . . . .	18000	27895
Parks. . . . .	53580	35365
Public Bldg's. . . . .	25200	15050
Water. . . . .	30000	156592
Lights. . . . .	38000	53923
Public Debt. . . . .	214322	98932
Executive & Legislative. . . . .	10500	13000
Misc. & Surplus. . . . .	365250	51252
Cost of City Gov't. . . . .	837079.	785603.
Per Capita Cost . . . . .	\$1116	\$13.38.
For Family of Five. . . . .	55.80.	66.90.

The City Clerks Office gives the 1922 budget as follows:

Department.	Budget.	Tax Levy.	Raised.
General Gov't.	\$83555	.000300 Mills	\$32148.84
Public Safety.	376135	.003510 "	376135.94
Health & Sanitation.	150380	.001405" "	150561.78
Recreation.	78007	.000500 "	78014.15
Public Hgys.	53580	.000728 "	53580.70
Nursing Assoc.	15000	.000140 "	15002.60
Donation Fund.	10600	.000097 "	10608.98
Library Fund.	26790	.000250 "	26790.35
Firemen's Pension.	10716	.000100 "	10716.14
City Planning Comaiss.	18000	.000168 "	18003.12
Gen. Bonds & Coupons.	214323	.002000 "	214322.84
	<u>\$1037079.</u>		<u>\$ 1037079.00</u>

Wichita is constantly retiring its debts and has a surplus at present of \$275,953.78. No other Kansas city made as good a showing despite tax rates as follows: Wichita 9.2 mills, Kansas City 11.25 mills, Topeka 10.63 mills, Hutchinson 10.36 mills, Pittsburg 11.82 mills.

#### Financial:

	Bank Clearings.	Bank Deposits.
1900	\$ 25 723 796.00	\$ 2 368 100.00
1919	\$ 404 202 000.00	\$ 50 000 000.00

These figures show an increase of 2300 %. At the close of last years business the 1st Nat., the 4th Nat., Union Nat'l. and the Union Stockyards Nat'l. Bank showed total Deposits of \$26 682 335.79 and inc. of \$2 458 774.97. for the year. In 1921, Wichita was the 36th city in the United States in bank clearings. The assessed valuation of Wichita is \$105 000 000.00



oil and gas.

About 5 yrs. ago ,adjoining Wichita on the east,oil and gas were discovered both of which have developed very rapidly.The value of the fields is estimated at \$175 000.00 daily.The find known as "The Mid-Continent" in Kans., Okla., and Texas is one of the largest areas known.

Twelve million dollars is the annual turnover in the oil refining business in Wichita.Wichita has storage for 300 000 barrels and there are two pipe lines to the fields.There are five refineries in the city representing an investment of 4 or 5 million dollars,which give employment to 300.

#### Light and Power:

The Kansas Gas and Electric Co.,from their plant on 3rd and Kelly Streets,distributes 30 600 h.p. to Wichita and 26 surrounding towns and to 3 of the nearest oil fields.

#### Packing:

The city,always a livestock center,has three packing plants at present and another in the process of construction.The following figures are taken from the Union Stockyards:

	1922	1921	Gain.
Cattle . . .	391 118	230 161	111 857
Hogs,. . .	568 617	368 928	119 689
Sheep. . .	82 282	31 731	50 541
Horses and Mules . . .	17 788	19 885	6 395.

#### Grain:

A report in the monthly review shows that in the 1922 Reserve Dist.Wichita received in July 1922,3 264 000 bu. of wheat.Only Omaha and Kansas City showed heavier receipts. There are four flour mills in Wichita which put out 148 823 barrels of flour during July. Kansas City was the only other city exceeding this output.

#### Miscellaneous:

Six steam railways and one interurban.75 passenger trains in and out daily.13 railroad lines radiate from the city in all directions. Union Station and terminals costing \$2 400 000.One terminal elevator





1 250 000 barrels, and another under construction. First broom city in the world. Second largest market for the distribution of agricultural implements and machinery and high in thresher distribution.

# .....WATER.....

## Wichita Water Company:

Water is supplied to the City of Wichita by the Wichita Water Co., a private corp., operating under franchise and subject to regulation by the Commissioners & the City Manager. The franchise was renewed in 1922 for 20 yrs. This stated that the Company was to furnish \$100 000 in improvements in 1923: \$170 000 worth of improvements had however been contracted for by late summer, which include a new 3 000 000 gal. pump, raising the daily capacity to 25 000 000 gal., a 16" main to College Hill and a 24" main to the business district. The water co. is required to make extensions on demand of the commissioners and up to August 1922, more than 6 mi. of extensions had been ordered in.

The distributing system is valued at \$1 600 000: real estate, 60 acres on Ackerman Island, \$38 500: bldgs., \$90 000: machinery \$150 000. The annual upkeep of the plants is \$25 000 and 9% of the revenue of the company in 1921, (230 000) was spent on mains. In 1883 the company was organized and laid ten mi. of wooden mains: now there are 130 miles of iron mains, 750 hydrants and 14, 000 consumers. The plant averages 6 000 000 gal. daily: the highest last summer being 17 000 000 gal. Rates are from 25-5 cents per 100 Cu. Ft. with 10% disc.

## Pumping Plant:

The pumping station is located on Ackerman "Island" between the two rivers and on Central Avenue. Water is secured from wells drilled to a depth of 40 ft. 43 wells are 8" and 2 are 24" with a total rated capacity of 16 000 000 gal. daily. The smaller wells are pumped by vacuum into a concrete covered rec. well which is in connection with a 1 000 000 gal. reservoir. As the water passes to the mains, it receives liquid chlorine at the rate of about one-half lb. per million gallons. There is no filtration, storage, coagulation, or sedimentation.



The plant turns out, 1500-2000 gal. daily, power being produced in seven boilers. The equipment is rated to put out 21 000 000 gal. under stress and consists of the following pumps : one 5 000 000 gal. Prescott: one 3 000 000 Caskell: one 4 500 000 Wood: one 2 500 000 Gordon and one 1 500 000 Knowles and one 750 000 Carpenter. From the plant one 16" main runs north, one 16" main runs thru town for College Hill, two 16" mains supply the electric plant and business district and one 12" main runs south on Seneca Street. Water is held at a pressure of 60 lb. in the main lines to the city and 80 lbs. in that to College Hill. These mains are being laid out as mentioned. Recently, wells were sunk up in 15 points in the city and inspected and said "to have been in perfect sanitary and mechanical condition".

#### Analyses of Water Supply:

The source of Wichita water is ultimately surface water and is undoubtedly contaminated by the two rivers flowing in their deep sandy channels. This is indicated by:

(1) During high water in the Rivers, that in the mains will be found cloudy.

(2) During the dry season, when the river flow is sluggish, and all low areas dry, samples taken at the plant and at numerous points thruout the city show B. Coli in about 35% of the 5 c.c. and 10 c.c. samples, less frequently in the 1 c.c. samples.

(3) During the spring freshets water oozes from the ground in low spots for as far as 4 mi. demonstrating the extensive underflow of the Arkansas River System.

(4) During bad fires, with heavy pumping, the water in all mains becomes so muddy that it is unfit for any use.

These conditions would not be possible if the water was not secured almost directly from the river overflow. Now "deep well water" can be secured from a 40 ft. well is beyond me. During the summer of 1922 the Santa Fe R.R. forbade the use of Wichita water on its interstate carriers due to repeated positive B. Coli tests secured by the State Water and Sewage Laboratory, from samples taken from the top of the Union Station.





The present Sup't. of the Water Plant is absolutely ignorant of the theory (or practice either) of water analysis or purification and his attitude toward positive tests is a constant danger to the city. Routine tests are taken by the Sanitary Officers every three days and for all the effect that they have on the Sup't. could easily be dispensed with. The plant engineer is even worse, knows nothing of the relation of the water supply to public health and doesn't want to learn, and he doesn't believe in "the bug theory" and there is a constant battle between the City Physician, Manager, and Bacteriologist to get sufficient chlorine in the water to prevent even the grossest of contamination. Altho no serious outbreak of disease has been traced to the water supply it is a very potent and potential danger.

An analysis of Wichita water, summer of 1922 follows:

Nitrogen as Free Ammonia. . . . .	.028	pts.	per Million.
" " " Albuminoid Ammonia. .076	"	"	"
" " " Nitrates. . . . .	.000	"	"
" " " Nitrites. . . . .	.004	"	"
Chlorides. . . . .	.680	"	"
Silica. . . . .	.23.4	"	"
Ca & K. . . . .	420.2	"	"

From the mineral standpoint the water compares with other water in the

state as follows:

City.	Ca	Mg	HCO <sub>3</sub>	SO <sub>4</sub>	Fe	Total Solids	Source	Treatment.
Kansas City <sup>1</sup>	4.8	1.30	10.8	6 1		26	Mo. River.	Coag. & Filt.
Topeka <sup>1</sup>	2.6	.55	5.8	5 3	.000	18	Kans. Ri.	Sed. Soft. Coag. Filt.
Hutchinson	2.0	1.35	14.5	9 6	.700	65	Shallow Wells.	
Jeffreyville <sup>1</sup>	5.6	.91	17.5	3 7		25	Verd. Ri.	Sed. Coag. & Filt.
Independence <sup>1</sup>	2.8	.35	8.	3 0		18	Same as ab ve.	
Pittsburg	3.7	1.70	18.4	4 8	.004		Deep wells.	
Hutchinson <sup>1</sup>	4.0	1.70	10.7	7 2		26	Mo. Ri.	Sed. & Coag.
Ft. Scott <sup>1</sup>	5.6	.49	15.6	3 3		16	Wamaton Ri.	Sed.
Lawrence <sup>1</sup>	2.6	.55	5.8	5 3	.000	18	Kans. Ri.	Sed. Soft Coag. Filt.
Newton	3.0	4.09	15.0	1 5	.11	14	Shallow wells.	
Wichita	8.8	1.70	14.3	14 7	17	100	Deep wells.	

<sup>1</sup> Surface water supply. Chemical condition varies considerable with rainfall and variation in stream flow. Mean values taken from records in Water and Sewage Lab. with free use of Water Supply Record 272 U.S.G.S.  
Values in grains per gallon.

#### Public and Private Wells:

Public wells are limited to 15- 20 driven wells in the outlying parks. These are checked by the parks dep't. about every 2 mo. and if found to be contaminated, it is either corrected or the well pulled up. They do not menace the public health.



Private wells numbering 500 range from 20 to 40 feet deep are almost all of the driven type. The City Lab. runs free tests on these wells (tests are not compulsory) and most of the shallower ones (30%) give presumptive evidence of contamination, most of the deep wells and cisterns are negative. No confirmatory tests are done except on the city samples due to lack of facilities. The public in general reacts well to the lab. diag. of "Water Dangerous without boiling", but the city is powerless to condemn a dangerous well unless it be located on a dairy farm, or where it may injure those not warned.

#### Bottled Water:

Several companies in Wichita market spring water and distilled water. These are also checked up by the board of health and the source of supply and the distilling looked into. Sources of contamination have been picked up in this way. The well-known companies however put out a very dependable water and is the only source of water that is palatable to an outsider.

#### Source and Criticism:

(1). The water is not "deep well" but in all probability surface water from the Arkansas River Basin. Under the present management at the plant this is always a potent danger.

(2) The supply seems inadequate. In case of emergency the severe pumping renders the water unfit for those that use it normally. Further wells will not remedy this in all probability as the "river supply" seems well tapped as it is.

(3). Analyses shows high total solids, chlorides, nitrites and bacterial count. 1 degree hardness (Clark's Scale) and high total solids render it bad for power purposes.

(4) The large number of private wells, nearly all of the shallower ones of which, give presumptive evidence of contamination are uncontrollable except in specific instances.

#### .....RECOMMENDATIONS:.....

(1) Municipal Ownership of the Water System.

(2) New Water Supply. The best available supply at present seems to be that at the junction of the north and south forks of the Neosho River





15 mi. south west of the city. The water is soft and quantity adequate . .

(3) The institution of a protected water shed in the Minnescan Basin, including such dams, reservoirs etc. that may be needed.

(4) Adequate reservoir system within the city.

If the above cannot be accomplished then I recommend:

(1) Discharge of the present Plant Supt. Replacing with a man of sufficient knowledge to handle public utility with safety.

(2) Discharge of the present Plant Engineer, replacing same with a man who <sup>be</sup> doesn't have to continually watched to see that sufficient chlorination is being secured and one in sympathy with modern methods.

(3) The institution of a modern water plant utilizing the principles of coagulation, flocculation, filtration and chemical treatment of water.

(4) In cooperation with (3) above an adequate supply could be secured by taking water direct from the river: about 150 yards away.

#### .....SEWERS......

##### General Considerations:

The Wichita Journal of Commerce of 1888 states, "Some of the rivals of Wichita have said that the city cannot be sewerred. They simply expose their ignorance of the lay of the land. The city has a fall of more than five feet to the mile from north to south, and for more than two years has had a sewer more than four miles in length". This sanitary sewer system with necessary additions has been maintained until the present. The system is essentially a gravity one, pumps being needed in only two places. These are automatic hydro-electric stations costing the city \$600.00 per yr. for maintenance. Separate storm sewers have been installed and probably will remain so due to the necessity of pumps in the sanitary system in the lower parts of the city.

The sewer system is under the care of the Public Serv. Dep't.: it consists of 183 mi. of sanitary sewers with 1000 dead ends and 57 mi. of storm water sewers with 1438 catch basins. Due to the constant building activity sewers in many instances have been overloaded and a force of men, consisting of a Supt., five men, and a team, see that they are kept clear, as well as do all



the routine work connected with any sewer system. There were 5 046 ft. of sanitary 8" sewers installed in 1921 at a cost of \$6 841.43. Total storm sewers for 1921, 13 096 ft., at a cost of \$57 671.79; they ranged from 10 inch to 42 inches in size. The budget of the Sewer Div. of the Public Ser. Dep't. for 1922 follows:

Salaries. . . . .	
Maintenance of Sanitary Sewers. . . .	\$2 100
" " " Storm " " " " . . . .	10 000
Power and Oil for Pumps. . . .	3 500
Water for Sewer Pumps. . . .	500
Maintenance of Equipment. . . .	100
Repairs " " " " " " " " . . . .	500
Miscellaneous. . . . .	1 000
	<u>300</u>
	\$18 000

The Total Sewer System of the City is as follows:

	Sanitary to Dec. 1921.	Storm to Dec. 1921.	All.
Installation cost	\$117 405.48.	\$500 298.32.	\$1 674 355.80.
Length in Feet.	924 532.	302 529.	1 227 062.
4 Inch	449 feet		449 Feet
6 "	6 269 "		6 269 "
8 "	704 876 "	48 533 Feet	753 399 "
10 "	36 481 "	29 427 "	65 908 "
12 "	42 153 "	28 992 "	71 145 "
15 "	25 881 "	35 986 "	59 867 "
18 "	47 152 "	28 124 "	75 276 "
20 "	35 140 "	2 566 "	33 706 "
21 "	6 932 "	11 591 "	18 523 "
24 "	9 150 "	44 778 "	53 928 "
26 "	1 135 "		1 135 "
27 "	671 "	8 614 "	9 285 "
30 "	11 821 "	13 375 "	25 196 "
33 "	3 591 "	8 316 "	11 907 "
34 "	410 "		410 "
36 "	16 463 "	6 276 "	22 739 "
39 "	14 723 "	2 866 "	17 589 "
42 "	20 356 "	8 147 "	28 503 "
45 "	12 479 "	5 073 "	17 552 "
48 "		12 411 "	12 411 "
51 "		553 "	553 "
54 "		757 "	757 "
57 "		2 117 "	2 117 "
60 "		3 028 "	3 028 "
Total in Miles	188.36	57.29	245.65.

#### Sanitary Sewers:

Drainage of the sanitary sewers of the city is by two main trunks. The West side sewers all empty into the Big River, indirectly thru the ditch shown in the attached photograph, far below the city limits. The main sewers of the East side, draining the larger portion of the city, run south about four mi. and empty into the Chickahomine Drainage Canal just before the canal empties into the Big River, below what is known as the Hydraulic Street Bridge.





### Storm Sewers:

Storm sewers for- rather a complicated system. One large main draining the South End empties into the "Big River" just below the South Lawrence ST. Bridge near west is termed "Sewer Island". Other storm sewers of the west side and central sections of the town drain directly into the two rivers all along their courses thru the city. Another large storm sewer, draining the Riverside Park Sect. runs directly into the "Little River". A drainage ditch for the south end of the west side runs parallel to the Wichita and Western tracks to empty into the "Big River". The East side residential district is drained in the main by the drainage canal running south near Hydraulic Street, and emptying the Arkansas as stated above. This canal follows the old line of the Chisholm Creek thru the city.

### The Chisholm Drainage Canal:

A peculiar situation in the storm water sewer system is the drainage canal running north and south thru the city on Hydraulic St., receiving surface water from all west and east streets as well as a large part of the area to the eastward by means of the drainage action of 3rd street whose surface is concave, allowing water to run west down the center of the street for a half mile until it empties into the drainage canal at Hydraulic St. This canal starts north of the town at Sullivan's Dam on the Little Arkansas and runs a course already described, and featured on the city map. Sullivan's Dam was built in the early '70's by the Hydraulic Co. who owned a mill at 1st and Hydraulic Streets. This mill was run by power from Chisholm Creek. The dam was built to reinforce this creek. A canal a half mile long connected the flood water above the dam on the Little Arkansas with the creek. At ordinary water stages the water in the Little Arkansas is 2 ft. lower than in the Creek: the dam reversed the situation and sent water down the creek from the river.

The city acquired possession of the dam, canal, and other rights and Sewer No. 1. was constructed, running thru the business and residential districts, starting at 21st and Lawrence. It is flushed by water flowing from the Little River into the Creek, and then into the sewer. This scheme worked for 20 yrs. when Wichita was visited by a flood. There were those who favored blowing up the





But a flood gate was finally constructed and is used at this time to admit as much water into Chisholm Creek and the canal as maybe necessary to keep up a good flow thru the city.

#### Comments and Criticisms:

(1) The Sanitary Sewer system empties sufficiently far below the present city limits that it is doubtful if it will ever become a nuisance. The nearest town on the river is 3 1/2 mi., a distance coupled with the sandy nature of the river bed to permit of adequate oxidation.

(2) June 28 following a heavy rain the following conditions were observed:

(A) AT 14th and Market and at Wardock and Munro street cars were tied up because of 18" water on the tracks.

(B) Catch basins were present but insufficient to carry off the water, stood after an hour's time in many parts of the city.

(C) At 21st and Arkansas water stood 4 ft. deep.

(D) Eight places where the water stood half way across the pavement.

(E) At 352 Holjoke St. (see pict.) a new foundation is ruined and cellars of an entire block filled with water. No drainage ditch being present on College Hill, the wash from the west side of College Hill has run from an area of about one half sq. mi. thru private property and then along a series of streets before it empties into the Canal.

(F) On Hillside, for three blocks, pavement submerged in 18" of mud and water.

(G) Downtown basements on Douglas, 1st, 2nd, and 3rd flooded and much damage done. (Trip completed 6 hrs. after rain).

(3) Danger of flood from backwater due to narrowing of river channel near the Harry St. Bridge by indiscriminate (altho forbidden) dumping.

(4) Pools of stagnant water in the West Side Drainage Ditch menace the health of the population.

(5) The drainage canal is at present a sanitary nuisance as the oil refineries in the North end dump refuse into it which must flow thru the entire city. This produces tainted water and a rotten odor.

(6) Unprotected openings into the drainage canal. Dangerous for children.



(8)As instanced by our inspection of the 23rd. at Nims and Burdock Streets the storm sewer opening is not sufficiently above the Little River to prevent back flow during flood time.

.....RECOMMENDATIONS.....

(1) New storm sewers to drain the sections flooded last summer, namely Burdock and Nims, and Riverside sections; College Hill section; and the business sections on 1st, 2nd, 3rd, and Douglas Streets.

(2) Enlargements of catch basins where water stood for half a day and thus undermined the pavement. At least keep the catch basins that are available in working condition.

(3) Elimination of stagnant pools in the West Side Drainage Ditch. The Ditch itself is an eye sore and plays a very inefficient part in the drainage of the city and could very easily be dispensed with.

(4) Prevention of flood by the enforcing of the dumping ordinances relating to the Arkansas River. Elimination of refuse all ready collected there.

(5) Injunction to prevent industrial utilizations of refuse drain.

(6) Adequate protection of all canal openings, and catch basins.

(7) Increase of the "Sewer Gang" so that the above recommendations could be carried out with the necessary increase in the "Sewer" Budget to accommodate such an increase in help.

.....GARBAGE....REFUSE....ASHES.....

The Old Garbage System:

Garbage collection is under the control of the Dep't. of Public Health. Up to the summer of 1922, collections was by individual contracts for certain sections of the city. Under this system, one who desired to collect the garbage for a certain portion of the city took out a license from the City Clerk's office and then had a certain section of the city assigned to him by the Bd. of Health. He is allowed to charge each householder 60 cents per month and also rec. a small amt. from the Bd. of Health. Under his agreement, he must collect the garbage from every home in his territory thrice weekly in summer and twice weekly in winter.





The town down collection must be made daily. He is allowed to dispose of the garbage at his own discretion but they usually fed it to hogs kept outside the city limits by ordinance 2605. Sec. 1.

Garbage equipment must measure up to a standard set by law. Garbage must be placed in metal cans with air tight top in places convenient for the collector. Only "organic waste" is to be placed in the cans, and the excess water be drained off. The wagons must be covered, fly proof, and externally clean.

The system is under the supervision of a Sanitary officer who books new customers, receives complaints, inspects the wagons, hog pens etc. as the conditions demand.

Most of the collectors (total 26) are negroes.

Under this plan 5 000 of the 16 000 homes in the city are receiving garbage service, at a cost of \$7.20 per yr, a total annual outlay of \$36 000. plus \$15 000 required by the Bd. Of Health for management and maintenance

#### Critisms:

1. The system lacks unity: there is divided control and divided responsibility. It sounds fairly well on paper but it works very poorly in practice.

2. With the ever changing personell in the "contractors" and their hired help no assurance is given in the regularity of collection and in the following out of the laws regarding proper equipment.

3. Only a fraction of the city is "properly garbaged" and that poorly.

4. A large part of the garbage is disposed just outside the "hog limits" constituting a decided nuisance to residents of the North End.

#### New Garbage System:

For more than a year the garbage situation has created much comment, criticisms from the citizens increased rapidly in number and a change was decided upon.

Late in the summer an agreement was made with a farmer and hog raiser living northeast of Wichita whereby he accepts the contract to haul any and all garbage from the city and dispose of it in any sanitary



manner, on the basis of \$32 000 for 1923 and \$2 for each dwelling per year for the 9 succeeding years. The City Planning Commission estimates the number of houses will reach nearly 16 000. This new service goes into effect (or rather goes) Jan. 1st, 1923. The city defrays all expenses by a special approp. in the annual budget.

Cards will be printed containing the new garbage rules and distributed to every home by the garbage collector. They read in part as follows:

1. Good metal garbage can. Handles and tight fitting cover.
2. Garbage on ground floor.
3. "Organic waste" only in garbage can: this term is defined.
4. No coffee grounds, dead rats, mice or cats, broken crockery, glass or trash: drain off surplus water.
5. Line can with paper in winter to prevent garbage freezing to sides.
6. Collections twice weekly in winter, thrice in summer. If other material placed in the can there will be no collection.
7. Report any failure or discourtesies to the Bd. of Health.

The operator proposes to use 23 men and 14 wagons.

Comment:

This is a step in the right direction: unification in control and responsibility. The hogs to be fed are far outside the city limits and will thus eliminate the nuisances in the North End. The system is too young for correct valuation but it seems that the system will be readily outgrown unless some more efficient means of collections than small wagons be utilized. Large, wide bottomed trucks, which could be easily cleaned, easily dumped, and easily covered in passing thru the city would be much more to the point.

Dead Animals:

The Wichita Densicating Co. operates under franchise from the city to take care of all dead animals within the city limits. They operate "two dead in wagons" and take care of an area with a 29mi. radius of the City Hall. These animals are made into hog feed at a plant at 915 E. Bentley st. There they are cut up with axes and thrown into "cookers" (huge autoclaves) or pressure





boilers. The liquid derived from this process is "styx" and when evaporated yields a dry powder almost pure protein. The meat is ground and dried, mixed with "sytx" to produce a 55% protein mixture and marketed as hog feed, at \$2.50 per 100 lbs. The bone brings \$3.75 per ton. The plant runs from 6-12 head per day.

#### Comment:

The plant gives off a penetrating odor that can be picked up yards yes nearly miles away but due to it's isolation is not as great a nuisance as would otherwise be the case. The plant abounded with filth, flies, and bloody liquid teeming with maggots filled the depressions of the floors. All kinds of infected animals are handled, including anthrax and glanders, without the least protection to the workmen. The manager is a relative of the Sanitary Officer.

#### Recommendations:

1. The elimination of "Political Influence" by the removal of the Sanitary Officer under whose control and in whose district this abomination exists.
2. Renovation of the building itself: removal of wooded floors and concrete floors and stalls, screening from flies established.
3. A complete flushing out of the entire establishment after every days run.
4. Either the non handling of infected animals, eg., anthrax, or else adequate precautions and protection of workmen to prevent their contraction, of, or assisting in, the spread of the disease.

#### Refuse and Ashes:

The disposal of refuse and ashes is not a part of the city garbage system: each person looks after their own disposal. This does not cause as much trouble as would be supposed due to the large consumption of natural gas.

More serious difficulty comes from the result of trash disposal. All trash haulers are supposed to be licensed: most of them using the city dumps are; most of the others are not and they are many. These latter dump their "wares" at any out of the way place where they can "get by" unapprehended. Such disposal has seriously narrowed the river channel as here-to-fore mentioned.





Comment:

1. The 17th St. dump is a "blighted district"(note picture)The ground is low and unsuited for building purposes. Illegal dumping began here some years ago and the city was forced to buy the property to satisfy claims arising out of this condition. At present the residential district has built up to it from the south and the industrial district from the north and it remains and will continue to remain an impediment to progress in this part of the city.

2. Promiscuous dumping in areas not attended by dump men lead to subterranean fires, which cannot be handled by the fire dept. and simply have to burn themselves out or are smothered by "cave ins" from above.

3. The opposite extreme is produced by filling in the river channel: greatly increasing the probability of floods.

RECOMMENDATIONS:

1. Elimination of the present licensed system and the installing of a unified system whereby control and responsibility for trash hauling is vested in one or a few persons for the entire city. This or these persons are to be under contract with the city and under the supervision and control of the Bd. of Health or City Planning Commission, and bonded sufficiently to insure sufficient and efficient service. The est. of a new dump well out of the city.

2. Elimination of the present 17th St. dump by filling in this area (sand could be sluiced here without great cost or trouble) so as to render it fit for business or residential utilization.

3. Absolutely no promiscuous dumping. Have the most frequently visited "illegal dumps" well placarded, with sufficient fines and jail sentences for those violating the ordinances. Maximum sentences for those convicted until the balance of those engaging in this "traffic" find out that the city means business.

4. Cleaning up the "illegal dumps"

..VITAL STATISTICS..Death Rate:



According to the figures rec. from the State, Kansas Bd. of Health the death rate for Wichita for 1921 was 12.2 per 1000. A comparison with the larger cities of the state follows:

City	Pop.	Deaths.	Rate.
Kansas City	102 763	1260	12.2
Topeka	49 600	726	14.2
Wichita	79 571	974	12.2
Hutchinson	27 016	260	9.6
Pittsburg	18 074	161	8.8

The State Board was unable to furnish specific rates and the city had no such record. What were obtained were simply secured by going thru what available records there were. We were unable to check with the Kansas Bd. of Health in their figures. The records seem to show 1,218 deaths (88 of which were bodies shipped in). This gives a rate of 16.2.

#### Infant Mortality:

During the yr. 1921 there were 2 026 births, excluding 88 still births this gives 1,946 live births. There were 114 deaths giving an infant death rate of 58.5 per 1000 live births. These 114 deaths were classified as follows:

Pneumonia. . .	20
Congenital Defect. .	24
" Debility.	16
Other causes . . .	54.

Such statistics are of little value.

#### Specific rates:

Pneumonia	68	Typhoid	13
Age 1-10	22	Measles	3
Above	46	Scarlet	6
Tuberculosis	37	Diphtheria	21
Pulmonary	31	Pertussis	2
Other forms	6		

The high death rates from typhoid and diphtheria can be explained: the former from an epidemic from one dairy and the latter to the fact that the city is alive with Anti-vaccinationists and there is much opposition to the Schick Test and still more to immunization. This resistance to public health measures is gradually being overcome, the winter of 1922-23 witnessing the first real campaign against the disease.

Specific Rate for Typhoid	$\frac{13 \times 79,571}{100,000}$	or 10.34
" " " T.B.	$\frac{37 \times 79,571}{100,000}$	or 29.44







Specific Rate for Measles	$\frac{3 \times 79.571}{100\ 000}$	or 2.38
" " " Scarlet	$\frac{6 \times 79.571}{100\ 000}$	or 4.77
" " " Dipther.	$\frac{21 \times 79.571}{100\ 000}$	or 16.71

### Medical Registration in Wichita:

There were many instances in going over the records where the death certificate was improperly made out and the cause of death practically impossible of ascertainment. This probably accounts for our not agreeing with the records of the State Board. There is much to be desired in the line of improvement in Medical Regis. in Wichita (There seems to be everywhere for that matter).

### ...MILK...

### Legal Regulation:

1. State: The authority of the state is decidedly limited. The only measure is as follows:

"Regulations for the quarantine and isolation of infectious, contagious or communicable diseases, dangerous to the Public Health".

#### " GENERAL MEASURES "

##### Rule X11

"Sale of Milk Prohibited (A) The sale, distribution or the use of milk or dairy products from the premises where smallpox, diphtheria, septic sore throat, scarlet fever, ep. cerebro spinal meningitis, ac. poliomyelitis, typhoid fever or paratyphoid fever is known or suspected to exist is strictly forbidden unless the milk is handled, milk utensils sterilized, and stock cared for and products transported by the persons entirely disassociated from the quarantined or diseased family, or the house in which such person is confined.

(B) The sale, distribution or use of milk or dairy products where t. b. is known to exist is strictly forbidden except for a written permit from the local health officer. Before issuing such a permit, the local health officer shall satisfy himself by personal investigation that such milk or dairy products are being produced or being sold under conditions that will not menace the health of the consumer and shall make to the State Board of Health a full and complete statement of his findings as a result of his investigations.

(C) In delivering milk to families in which there exist any of the above mentioned infectious, contagious or communicable diseases, the dairy man shall not enter, nor shall he permit any of his milk bottles or utensils to enter or leave such house, but shall pour such milk as each family wishes into receptacles furnished by the customers.

(D) It shall be the duty of the physician in attendance of any case of any of the above named diseases to post on the premises at the entrance or entrances where milk is customarily delivered a placard to be furnished by the local health officer bearing the following admonition:

#### "Notice to Milkman"

A case of communicable disease exists in this house. Bottles of milk must be left on these premises, and empty milk bottles must not be removed while this placard remains.

This placard must not be removed except by the order of the Board of Health."









## RULES AND REGULATIONS RELATIVE TO MILK AND MILK PRODUCTS.

Rule 1. Procedure governing the grade of milk:

(a) Inspections shall be made of all dairies delivering to Wichita and of all milk plants or milk stations within five miles of the City of Wichita at least once a month or oftener if deemed necessary by the Board of Health. Dairies shall be scored according to the score cards recommended by the U. S. Dept. of Agriculture.

(b) The bacterial standards established for the particular grade and designation of milk or milk products constitutes one of the controlling factors in determining whether such milk or milk products are produced, pasteurized, transported or delivered in accordance with these regulations, and the Department of Health of the City of Wichita will exercise the control furnished by such standards in the manner and with the restrictions herein set forth. Periodical samples for bacteriological examination shall be taken of milk and milk products before and after pasteurization. If as a result of the bacteriological examination of such samples, it appears that the milk or milk products does not conform to the bacterial standards prescribed for the particular grade and designation of such milk or milk product, and the bacterial content is in excess of such standards, a written notification shall be sent to the persons, firm or corporation holding a permit from the Board of Health. Such written notification shall call attention to the fact that the bacterial content of such milk product is in excess of the standards, that the cause of such excess must be immediately removed, and that additional samples shall be taken of such milk or milk products within a specified time thereafter, and within the time specified in said written notice, additional samples shall be taken by the Department of Health and if the bacterial content of such milk or milk product is again found to be in excess of the prescribed bacterial standard and the cause thereof has not been removed, a second written notification shall be forwarded to such person, firm or corporation directing attention to such facts. Such written notification shall specify that further samples will be taken within a specified time and if such milk or milk product is again found to be in excess of the bacterial standard the Department of Health will take immediate steps to determine the cause thereof, and, if it is found not to have been produced, pasteurized, handled, transported, or offered for sale, and sold in accordance with these rules to exclude such milk or milk products as graded and designated from the City of Wichita.

The provisions of these rules shall not, however, be construed as limiting the power and authority of the Board of Health to exclude milk or milk products which have been found to have been suspected or containing pathogenic bacteria or which have been found adulterated or mis-branded under the provisions of the Board of Health.

Rule 2. Grade A milk (raw) is milk produced and handled in accordance with the following special regulations:

1. Grade A milk (raw) shall be milk from a herd, each member of which shall be free from communicable disease as determined by complete physical examination and tuberculin test which must be made at least once a year. Such examination and test must be made by a veterinarian whose competency and reliability have been certified by the State dairy commissioner.

A report, examination and tuberculin test approved by said bureau must be filed with the Board of Health before the milk from any cow be sold as grade A milk (raw).

2. Grade A dairies must score 80 or above. Grade A milk (raw) shall not develop more than 50,000 bacteria per cu. centimeter and cream more than 250,000 bacteria per cu. centimeter when inoculated into standard agar.

Grade A Milk (raw) shall be delivered to the consumer within 24 hours of the production and only in bottles unless otherwise specified in the permit, issued by the Board of Health.

Rule 3. The Board of Health shall cause all persons employed in or about dairy barns or milk houses who, in any manner, come in contact with the milk on the farms on which grade A milk (raw) is produced or in any place where grade A milk (raw) is exposed or placed in containers to be examined for communicable disease at least annually and at any subsequent time as the Board of Health may direct. Those found free from communicable disease shall be furnished a health certificate in

accordance with the regulations of the Board of Health. The medical examinations and the issuance of the health certificates shall be at the expense of the Board of Health.

Rule 4. Grade A milk (pasteurized) is milk produced and handled in accordance with the following special regulations:

1. Grade A milk (pasteurized) shall be milk from a herd, each member of which shall be free from communicable disease as determined by complete physical examination and T. B. tested at least once a year. Such examinations shall be made by a veterinarian whose competency and reliability have been certified by the State Dairy Commissioner.

Grade A milk (Pasteurized) dairies must score 75 points according to the score cards of the U. S. Bureau of Agriculture. No milk supply shall be pasteurized to be sold as grade A milk (pasteurized) which develops in each of three samples more than 500,000 bacteria per cu. centimeter when inoculated into standard agar before pasteurization.

3. Grade A milk (pasteurized) shall not develop more than 50,000 bacteria per cu. centimeter and cream more than 250,000 per cu. centimeter when inoculated into standard agar from a sample of grade A milk (pasteurized) as delivered to the consumer, or that at any time after pasteurization or prior to such delivery.

4. Grade A milk (pasteurized) must be delivered to the consumer within 24 hours after pasteurization.

5. Grade A milk (pasteurized) shall be delivered to the consumer in bottles only unless otherwise specified in the permit issued by the Board of Health.

6. Pasteurized milk is milk which has been heated to a temperature of 145 degrees Fahrenheit and held for not less than thirty minutes at a temperature of approximately 145 degrees Fahrenheit but never less than 142 degrees Fahrenheit.

Rule 5. Grade B milk (raw) shall be milk from a herd each member of which is free from communicable disease and T. B. tested once a year.

Grade B milk (raw) dairies must score 70 points according to the score cards of the U. S. Department of Agriculture.

1. No milk supplies shall be sold as grade B milk (raw) which develops in each of three samples more than 150,000 bacteria per cu. centimeter. Grade B milk (raw) shall have on the caps of the bottles grade B milk (raw).

2. Grade B milk (pasteurized) is milk produced and handled in accordance with the following special regulations: Dairy must score 65 points according to the score cards of the U. S. Department of Agriculture.

1. Grade B milk (pasteurized) shall be milk from a herd, each member of which shall be free from communicable disease as determined by complete physical examination and T. B. tested once a year. Such examinations shall be made by a veterinarian whose competency and reliability have been certified by the State Dairy Commissioner.

2. No milk supply shall be pasteurized to be sold as grade B milk (pasteurized) which develops in each of three samples more than 1,500,000 bacteria per cu. centimeter when inoculated into standard agar before pasteurization.

3. Grade B milk (pasteurized) shall not develop more than 100,000 bacteria per cu. centimeter and cream more than 500,000 bacteria per cu. centimeter when inoculated into standard agar from a sample of grade B milk pasteurized as delivered to the consumer, or at any time after pasteurization or prior to such delivery.

4. Grade B milk (pasteurized) shall be delivered to the consumer within 36 hours after pasteurization.

5. Grade B milk (pasteurized) shall be delivered to the consumer in bottles unless otherwise specified in the permit issued by the Board of Health.

6. The caps of all bottles containing grade B milk (pasteurized) shall be uncolored and the grade and designation grade B milk (pasteurized) shall be clearly and legibly printed on the outside of the cap.

Rule 7. Any person having the possession or custody of bottle, cans or other receptacles shall cause them to be cleaned immediately upon emptying same; and no person shall use a milk vessel as a container for any substance other than milk.

Rule 8. No dealer or other person shall remove from any dwelling in which exists any case of communicable disease, any bottle or receptacle without permission of the Board of

Health.

Rule 9. All dairy barns shall have an efficient system of drainage and ventilation. Floors, gutter and manger shall be of non-absorbent material where possible. All floors and gutters shall be free from depressions and have a sufficient slope to drain well.

Rule 10. Adequate water and wash basins shall be provided in the dairy barn or in an adjacent room.

Rule 11. The entire floor, gutter and mangers of all dairy barns shall be kept in a cleanly condition at all times. The walls, ceiling, and partitions shall be kept free from dirt and cob webs and shall at all times be kept properly painted or white washed. Milking stools shall be kept clean. Bedding shall be kept clean.

Rule 12. No manure or rubbish shall be allowed to accumulate in the barnyard.

Rule 13. The milk house shall contain at least one room which is used only for preparing milk for the market.

The milk room or rooms shall contain an efficient cooler and arrangements for bottling.

The room or rooms where the milk is exposed shall be so arranged as to be at all times protected from dust and insects.

The milk house shall contain rooms equipped with adequate facilities for cleaning all utensils.

All windows and all door ways of the milk house shall be securely screened so as to prevent the entrance of flying insects and the milk house shall be kept free from insects.

Rule 14. The water supply must be ample and free from contamination.

Rule 15. All dairy cows shall be free from disease as determined by the T. B. test and physical examination by qualified veterinarian and new animals shall be kept separate from the herd until approved by the Health Officer after such tests and examinations. All reactors to the tuberculin test must be immediately removed.

All certificates of T. B. test must be kept on file in the office of the Board of Health.

Milk from sick animals must be discarded and such animals isolated until re-admitted by the Health Officer.

Rule 16. Nothing but wholesome food shall be fed.

Rule 17. All cows shall be kept thoroughly clean at all times. Before each milking, dry dirt and loose hair shall be removed from the cows and places soiled with fresh manure shall be washed.

Rule 18. Utensiles shall be of simple construction so as to be easily cleaned. Joints and rims of utensils shall be smooth and seams entirely filled with solder. No milk vessels shall be used which are old, rusty or dilapidated. Before cleansing, milk utensils shall be rinsed with clear, cold water; they shall then be washed thoroughly inside and out with boiling water. After cleansing vessels shall be kept inverted without covers. Cleaning cloths shall be washed and boiled after each use. Sponges shall not be used for cleaning.

Rule 19. The milk should be cooled to 65 degrees Fahrenheit or less within 30 minutes after leaving the cow's udder; and must be at 50 degrees or less when delivered to the ultimate consumer.

Immediately after cooling, the milk should be placed in a clean, sterile container which shall immediately be closed with a sterile cap and shall be kept continuously closed until after sale to the ultimate consumer.

Rule 20. Where mechanical milking machines are used for milking the cows, such machines shall be of such type and construction that they can be taken apart and all the parts readily cleaned and sterilized. Every such machine shall be properly cleaned after being used and no such machine under any circumstances be used a second time unless it shall have been after the previous use thereof, so cleaned.

Rule 21. All dealers or small producers who buy part of their milk supply and can not classify in a class A (raw) or B (raw), must pasteurize the milk.

Rule 22. The average for bacterial content in any grade of milk must be under the required amount for each grade, in 80 per cent of samples taken.

Rule 23. The pasteurizing plants must keep a daily record of temperatures taken of the milk pasteurized. The temperature must be maintained not to exceed 145 degrees Fahrenheit nor to fall below 143 degrees Fahrenheit for a period of 30 minutes. Records of the temperatures taken will be kept on file and subject to inspection by the Milk Inspector.



An Ordinance for Regulation of the Production, Care and Sale of Milk and Cream in the City of Wichita, Kansas, Providing for the Promulgation, Establishment and Enforcement of Certain Sanitary and Health Regulations by the Board of Health of the City of Wichita, Kansas, Repealing All Ordinances and Parts of Ordinances Inconsistent With Its Terms, Prescribing a Penalty for the Violation of Its Terms and Relating Thereto.

Be It Ordained by the Board of Commissioners of the City of Wichita, Kansas:

**Definitions,** Section 1. That when used in this ordinance, or, in the rules and regulations and standards formulated and promulgated under the authority of this ordinance by the Board of Health, the following terms shall be defined and construed to mean as follows:

(a) The term "milk" shall include raw milk, cream, sour milk, sour cream, butter milk, and all fluid derivatives of milk wherever such definition of the term is applicable.

(b) "Cream" is defined to be that portion of milk, rich in butter fat which rises to the surface of the milk on standing, or, is separated from it by centrifugal force.

(c) "Adulterated" milk or cream is defined to be,

1. Skimmed milk or milk containing less than eight (8%) per cent of milk solids other than fat.

2. Milk which shall contain less than twelve (12%) per cent of milk solids\* or less than three and one-fourth (3 1/4 %) per cent of fat.

3. Cream containing less than eighteen (18%) per cent of milk fats.

4. Milk, skimmed milk or cream containing preservatives of any kind.

5. Milk or cream which is diluted with water or any other fluid.

(d) "Pasteurized Milk" is milk which has been heated to a temperature of 145 degrees Fahrenheit and held at a temperature of not less than 142 degrees Fahrenheit for not less than thirty (30) minutes.

(e) "Raw milk" is milk which has not been heated to a temperature equivalent to "Pasteurized Milk."

(f) "Bacterial Colonies Per Cubic Centimetre" shall be those obtained according to the standards established and fixed by the American Public Health Association.

(g) "Unsterilized Containers" are defined to be those which have not been subjected to moist heat or moist heat and chemical treatment as may be necessary to effect to a practical degree the destruction of bacteria and other micro organisms, or, which have been treated with chemicals other than the washing compounds in common use, unless such other chemicals shall have been approved by the Board of Health of the City of Wichita, or the State of Kansas for such purpose and use.

**Permit Required,** Section 2. No person, firm or corporation shall, after the expiration of ten (10) days from the taking effect of this ordinance, sell, keep for sale, deliver, or otherwise dispose of in the City of Wichita, or transport over the streets, alleys and public ways of the City of Wichita, milk or cream as herein defined until such person, firm or corporation shall have secured a permit as required under the terms of this ordinance and shall have complied with such reasonable rules and regulations as may be promulgated by the Board of Health of the City of Wichita, Kansas, as may be herein, or, otherwise in law, authorized.

**Application for Permit,** Section 3. Any person, firm or corporation desiring to secure a permit to sell, deliver or offer for sale any milk or cream as herein provided in the City of Wichita, Kansas, shall first file a written application with the Board of Health of the City of Wichita, Kansas, in such form and containing such necessary and reasonable statements and representation as may be approved by the Board of Health of the City of Wichita, concerning the nature and character of the business to be carried on by the applicant, the source or sources of supply from which the milk or cream to be offered by the applicant is to be secured.

**Application for a Permit to be Investigated,** Section 4. Upon the filing of an application as provided in Section Three hereof, it shall be the duty of the Board of Health to cause an immediate investigation to be made of the facts set forth in such application and such other facts as may be deemed advisable or necessary to ascertain that the milk offered for sale by any such applicant or applicants, is in conformity to the terms of this ordinance and that the source of supply is sanitary, clean, and healthy and if such Board of Health shall upon such investigation determine that the requisite facts exist and that the requirements of this ordinance and the health regulations relating to the sale of milk exist, then

such permit shall be issued to the applicant. No permit shall be issued for a period greater than one (1) year, and all permits regardless of the date of the issuance thereof, shall expire on the first day of January, subsequent to the date of issuance thereof.

**Fees to be Paid by Licensee,** Section 5. That before any permit to engage in the sale, delivery or other disposition of milk or cream, as herein provided, shall be issued by the Board of Health, the licensee shall pay to the City Treasurer the sum of \$1.00 per annum as a license fee for each permit desired, and each separate store or location, where such business is conducted, shall be considered to require a separate permit for the purpose of the payment of the license fee and for each delivery wagon or truck payment shall be made as required by existing ordinances or as may hereafter be provided. Such Treasurer's receipt shall be presented to the Health Department before the permit shall be issued. And provided further, that the annual license fee herein provided shall be prorated on a monthly basis where permit is issued for a fraction of a year.

**Permit to Contain Number Which Shall be Conspicuously Displayed by Licensee,** Section 6. When the Board of Health of the City of Wichita, Kansas, shall have authorized the issuance of a permit as herein set forth and provided, such licensee shall be given a milk permit number which shall be conspicuously displayed by licensee, and if such person, firm or corporation operates and maintains a wagon or vehicle in the conduct of such business then number of such license for each vehicle or wagon so operated by such person, firm or corporation shall be conspicuously displayed upon each wagon or vehicle, together with the words "MILK AND MILK PRODUCTS," and if no wagon or other vehicle is used by licensee, then such license number shall be conspicuously displayed in the place of business of such licensee.

**Sale of Impure or Adulterated Milk Prohibited,** Section 7. That from and after the taking effect of this ordinance, it shall be unlawful for any person, firm or corporation to sell, deliver, or keep or offer for sale, any adulterated milk or cream as herein defined, or any impure or unwholesome milk, or any milk or cream containing dirt, or filth, or any milk or cream which shall have not been produced, kept and cared for as provided by the terms of this ordinance, and in conformity with such reasonable rules and regulations as may be promulgated by the Board of Health of the City of Wichita, Kansas, as herein authorized, or any milk or cream which shall have been produced from unhealthy cows, or under unhealthy and insanitary conditions of housing and milking of cows, or under insanitary and unhealthy milking conditions. Nor shall any re-pasteurized milk be offered for sale or sold, except upon the express and specific authority of the Board of Health of the City of Wichita, Kansas; nor shall any milk or cream be sold or offered for sale except the same be certified or graded according to the standards herein provided and authorized and sold under the conditions and requirements contained in and authorized by this ordinance.

No milk or cream which has not been produced from cows which have satisfactorily passed the tuberculin test within twelve (12) months from the date of the offering of such milk or cream for sale shall be sold, distributed, or offered for sale in the City of Wichita.

**Milk Sold to be Graded and Designated,** Section 8. No milk or cream shall be sold or offered for sale in the City of Wichita, Kansas, except as herein elsewhere specifically provided, unless the same be sold under the following designated grades:

- (a) Certified Milk.
- (b) Grade A Milk (raw).
- (c) Grade A Milk (Pasteurized).
- (d) Grade B Milk (raw).
- (e) Grade B Milk (Pasteurized).

All of which milk shall conform to the rules, regulations and standards established by the Board of Health of the City of Wichita, Kansas, relating to the various grades and classifications as may hereafter be established under the authority of this ordinance and as by law provided.

Provided further, that nothing herein shall be construed to authorize the sale of milk where the bacterial colonies per cubic centimeter shall exceed the maximum count in the following grades and classifications of milk:

Certified Milk, 10,000 per cu. centimeter.

Grade A Milk (raw), 50,000 per cu. centimeter.

Grade A Milk (pasteurized), 50,000 per Cu. centimeter.

Grade B Milk (raw), 150,000 per cu. centimeter.

Grade B Milk (Pasteurized), 300,000

per cu. centimeter.

The bottles or containers in which the several grades and classifications of milk and cream are offered for sale shall be clean, sanitary and sterilized, and the caps on such bottles and the containers shall bear distinctive and distinguishing colors and markings indicating the grade of milk or cream contained therein. Such labels and markings shall conform to such reasonable rules and regulations as may be promulgated by the Board of Health of the City of Wichita, Kansas, and no milk shall be sold or offered for sale unless the containers in which same is sold or offered for sale shall bear the designation of the grade of such milk as herein provided.

**Rules and Regulations to be Promulgated by the Board of Health,** Section 9. The Board of Health of the City of Wichita, Kansas, is hereby empowered to establish and promulgate necessary, reasonable and proper rules, standards and regulations for the purpose of insuring a pure, healthy and clean milk supply for the City of Wichita, Kansas, and its inhabitants to that end that rules, regulations and standards shall be fixed and determined by the said Board of Health concerning the various grades of milk and cream, the kind and character of containers and vehicles of conveyance and transportation of milk and cream; the handling and care of such milk and cream, the character and care of dairy barns, milk-houses and water supply; the feed, grooming and milking of cows; milking utensils, and such other matters pertaining to the purity of the milk supply as may be needed for the premises.

Such rules and regulations and the establishment of standards shall be by resolution of the Board of Health, and shall be promulgated by the publication thereof in the official city paper, having been first submitted to and approved by the Board of Commissioners of the City of Wichita, Kansas.

**City Physician to be Executive Officer and charged with the Enforcement,** Section 10. The City Physician and his assistants and subordinates, under the direction of the City Manager, shall enforce the terms of this ordinance, and the rules and regulations and standards promulgated under authority hereof. The City Physician shall be the executive officer and charged with the immediate supervision of the enforcement of this ordinance.

**Saving Clause, Section 11.** That if any term, provision or requirement of the terms of this ordinance, or any rule, regulation or standard, established or promulgated by the Board of Health of the City of Wichita, Kansas, under the terms and provisions of this ordinance, shall be determined or held to be unreasonable, illegal, unconstitutional or void, the same shall not in any manner be held or construed to invalidate, nullify or make void, or otherwise effect any of the terms, conditions, requirements or provisions hereof, which may be valid, reasonable or constitutional.

**Penalty,** Section 12. Any person, firm or corporation who shall be convicted of the violation of any of the terms, conditions, provisions or requirements contained in this ordinance, or, who shall violate any of the reasonable provisions, terms or requirements or reasonable rules, regulations and requirements promulgated, or adopted by the Board of Health as herein authorized, shall upon conviction be adjudged guilty of a misdemeanor and fined in any sum not exceeding One Hundred (\$100.00) Dollars for each such offense and shall be committed to the City jail or workhouse until such fine be paid. And if the person, firm or corporation adjudged guilty of such violation be the holder of a license under the terms of this ordinance, or any ordinance amendatory hereof or supplemental hereto, then upon the second or any subsequent conviction of such offense, the Police Judge, or District Court on appeal, may enter a judgment in addition to the fine herein provided, revoking the license or permit of the offender, and thereafter a subsequent permit shall not be issued until the Board of Commissioners shall so direct.

**Conflicting Ordinances Repealed,** Section 13. That all ordinances and parts of ordinances inconsistent or in conflict with the terms of this ordinance be and the same are hereby repealed.

**Effective on Publication,** Section 14. This ordinance shall take effect and be in force from and after its passage and due publication once in the official City paper.

Approved this 7th day of June, 1921.  
WALLACE C. KEMP,  
Mayor.

Attest:  
H. D. LESTER,  
City Clerk and ex-officio Clerk to the Board of Commissioners of the City of Wichita, Kansas.





The Milk house, of three rooms, was directly adjoining the Milk barn. One room contained the machinery, the second was a bottle and utensil room, the third was a bottling room. The washing room contained wooden drying racks upon which the bottles hung inverted. The washing vat consisted of first, a soap vat, second a disinfectant rinsing vat (containing a demonstrated hypochlorite solution of proven efficiency), third a steam vat. The milk is poured directly into the cooler from where it emerges at 45 degrees F. and is bottled by a "Chilly King". The milking is done by a DeLaval machine. The milking tubes and the tubes of the bottling machine are washed, subjected to 30 lbs. steam pressure for 20 min. and then left in disinfect. sol. until the next milking, when they are again rinsed and subjected to live steam. They are connected with the city water and sewer system, the stripping is done in approved covered pails and the udders thoroughly sponged before milking. 400 lbs. of ice per. day is used in the milk house and in icing the crates, which are delivered by motors. The daily output averages 36 doz. gts. The older sect. of the barn is beginning to show it's age but from a sanitary standpoint still presents a creditable appearance. No pastuerization.

B. Bullock Dairy: Barn yard clean. Jersey, healthy and contented, ranch. A new barn embodies all the latest in dairy barn construction. Milking was done by hand in a satisfactory manner. The milk house was small and has not been modernized as had the dairy but that was to be done in a short time. It was small, clean, poorly ventilated, contained a separator, ice box, water pump, bottle rack, a double washing vat and depended upon steam derived from a gasoline stove heated boiler. 22 cows, 17 milking. Highest output 41 gal. Bacterial count shows that the milk house has not kept them from putting out an excellent product. No pastuerization.

C. Unclean Dairies: Not all the dairies were as the two above. Some were frankly rotten, covered with dirt, flies, manure, barns used for cows, horses, pigs, chickens, milk house, and equipment dump. No attempt was made at flushing, drainage, whitewashing, cleansing of udders, ventilation, adequate lighting, or cooling. The product however went to a pastuerizing firm and that was supposed





to compensate for all ills. The Milk inspector said "that he was only waiting for the law to get a few more teeth before he proceeded to close up the worse ones". Too bad he couldn't close 'em all up.

### City Milk Reports:

Milk samples for the lab. tests are taken from the delivery wagons by the Milk Inspector. Chemicals are run on all suspected milk, every now and then routinely to check up the entire town. This is not done on all samples; the lab. not having the facilities for such an extensive procedure., it is mainly interested in the bacterial count. Each month the average count of each dairy is published in one of the city papers. Besides the newspapers copies are sent to the City Physician, City Manager, and Milk Inspector. The "count" determine the grading. A part of the July report follows :

"Special milk: Campbell and Swinhart, 4,000; Jones and Marsh 5,000; Cravens 6,500; "4 others had milk with less than 10,000.

" Grade A Milk:" Consisted of 28 dairies that had a count of from 5,000 to 53,000.

"Grade B Milk:" Consisted of 25 dairies than had a count of from 19,000 to 255,000.

### Comparative Tables Concerning the Milk and Ice Supply:

(Bull. 33, Kans. Munic. Refer. Bur.) Questionnaires to all cities of the first and second classes.

Average price for raw milk in Kans. 10.2 cents with Fredonia low at 5 and Wichita high at 8 - 15 (Parsons at 10-15); all three require tbc. testing. In 21 cities the price of raw milk is 10 cents, pastuerized at 10.2. Topeka and Garden City get the latter for 8 and Parsons for 12-15 cents. Nine cities do not require tbc. testing. (1st Table)

The second table is taken from the U.S. Dep't. of Agric. Milk Market reports for comparison. Figures are not present for Wichita but they are inserted here at their May values. (2nd Table).



	Cost per lt. raw milk.	Pastuerized Milk.	Number Dairies.	All cattle tbc. tested.	Cost per cwt. ice of wagon.	In 500 lb. bks.	In 2000 lbs. bkws.	No Ice Co.	Natural or Art.	Shipped in.	Shortage and Remarks.
<u>CITIES OF THE 1st CLASS.</u>											
Atchinson	9	10	9	Yes.	70 cents	63		2	art.	No.	Short '18.
Coffeyville	8-12.5	10	15	"	"	60-	70	1	"	"	
Fort Scott	10	11	20	"	60	60	60	2	"	"	
Hutchinson	10	10	87	"	50	50	50	3	"	"	Ice at plant at
Nans. City	11	11	100	"	60	60	60	4	"	"	40 per 100.
Leavenworth	12	12	50	"	75-80	67		5	"	"	500 bk. at 70 cents
Parsons	10-15	12-15	60	"	60	57	45	2	"	"	
Salina		10	4	"		70		1	"	"	
Topeka		8	25	"	60	60	60	3	"	"	
Wichita	8-15	8-10	50	"	70	60	60	3	"	"	

Table 2.

Cost and Selling Prices.

City	Dealers		Allowance		Dealers Prices		Prevail ing B.F.	
	cost cwt.	deliv.	per .1%	Wholesale	Retail			
	(flat of bf)	B.F.cwt.	Per Gal. bulk	Per Qt. Bottled.	Family Qt.	Store Qt.		
WICHITA	\$2 00		( Most 4% flat)	30-32	8	10-11	10	3.8
Kans.City	2.03-2 15		Varies	25--28	8-9	11	9-12	3.7
Daver	1 75		B.F.Basis	25	8	10	19	3.6
Chicago	2 21		4.0	25-26	11	12	12-13	3.6
NewYork			---	32	13	13	13	3.7
Boston	2 95		Butter Quot.	33	10.5	12.5	10.5	3.7
Portland,Ore.	1 75		3.0	30	8	11	8-10	3.2

In the earlier reports the price tendencies remain about the same. In Wichita, Sp. Milk runs 12.5 -15 cents per qt. retailed to the house. There is no Certified Milk. Pastuerized milk is 10-11 retail, 8-9 wholesale. Grade A is 10-12.5 and Grade B 10 cents retailed.

Comments:

From the above it is evident that Wichita furnishes as good milk as any similar city. It has done so only recently however, since the present Inspector took charge of the situation in the summer of 1921. This resulted from a paratyphoid epidemic of 23 cases all traced to one dairy where one of the members had the disease, the faeces was placed in an open privy not more than 20 yds. from the house and the well from which the water was secured that was used in the dairy. The well was heavily contaminated.

The above incident and the incomplete tbc. of the cattle testing







under the control of the Milk Inspector(One heard of 45 when autopsied showed positive T.B. in 43) led to a demand for his removal. The Milk Inspector was also Inspector of Weights and Measures and the present incumbent had held the office for 18 yrs, was very friendly with all the dairymen, took their part in many instances, dairy sanitation became a farce, counts of 1 000 000 was of every day occurrence, and things drifted from bad to worse untill the "blow up".

Under the new regime all the herds supplying Wichita with milk are tested completely and the testing repeated every 12 Mo. Isolation of new cattle is enforced untill proven "free". Much has been accomplished but much more is to be done but had the letter of the law been strictly enforced from the beginning Wichita would have had to live on "Condensed Milk" as there was not a decent dairy in the neighborhood.

Grading of all producers has been undertaken, 20 dairies closed, numerous others given notice of closure, newspaper advertisement, educational campaigns instituted, and a gradual but steady betterment of the situation noted.

There are 8 Pastuerizers in the city (and the producers supplying these are the hardest to get to clean up), of these, DeCoursey, is the largest. The daily cap. is 3,000 gal. including what is skimmed for cream. 65% is past. They have their own lab. and cream testing equipment and check their tests with the City Lab. They are supplied by 385- 400 farms. They produce butter, operate a condensing plant and supply a good deal of raw milk to the Ice Cream plants of the City.

There is no Certified Milk in Wichita the Milk Inspector believing that carefully inspected "Special" milk is as good as the former minus a lot of red tape. Some of the "Specials" come near equaling the Certified count the entire year but are deficient in other requirements esp. equipment.

#### COMMENT:

The situation seems to have improved a great deal in the last two years but I still believe there is no use playing and waiting for time when it comes to handling dairymen. There are dozens of filthy dairies in and





about Wichita and they all should be made to clean up or get out of business. A month's notice would be sufficient time for any of them to get things in a fairly presentable condition-but it will take work and lots of it.

#### RECOMMENDATIONS:

1. Written notice to all filthy dairies to "clean up" and indicate to them what the term "clean up" means.
2. If No. 1 not complied with in 30 days, institute closure proceedings.
3. The establishment of "Certified Milk" in the City. As this has been chosen as the standard for the highest grade of milk, I see no reason why Wichita should not "fall in line" and not be content with anything less.

#### .....SANITARY NUISANCES.....

Defination: The Kansas Statutes of 1915 is as follows:

- 10182 Nuisances, sources of filth and causes of sickness; authority of boards of health to examine into and order removal by owner or occupant of property; penalty for failure to remove such nuisance; separate offenses.
- 3701 Permitting soap factories, candle factory, oil factory, glue factory, varnish factory, pork house, sausage house or lard house, to remain unclean to annoyance of citizens; punishment; what deemed second offense.
- 3700 Permitting slaughter houses to remain unclean etc etc.
- 3703 Maintaining stable, shed, or pen (where animals are kept) near dwelling house or permitting same to remain unclean; etc.
- 1012 Unlawful to throw litter etc, into the streets, alleys, etc.
- 1013 Space in rear of buildings to be kept clean of matter mentioned above. etc.
- 1015 Owner or occupants in month of April each year, clear property of matter mentioned in 1012. etc.
- 1021 Persons improving property encumber streets, etc., under permit; contractor clean up premises within 10 days. etc.
- 1016-1020 Meaning of the word "person" Penalty for violation. Etc. Receptacles, etc.
- 1030 Cities of 2nd and 3rd classes may abate nuisances on statement of board of health; notice to owner of property; owner failing to comply; etc.
- " Rules and Regulations for the Prevention of the Transmission of Typhoid Fever or other Infectious, Contagious or Communicable Disease or Diseases Dangerous to the Public Health through the Maintenance of Nuisances or of Fly Breeding Places"
- XLIII Use of abandoned wells as cesspools prohibited.
- XLIV No privy vault, cess pool etc unless water tight within 50 ft. of any





source of drinking water. Not to be drained into a stream or underground channel used for conveyance of water supply.

XLV All sewage drains in 50 ft. in loam or 80 ft. in sandy soil of water supply to be water tight.

XLVI (a) Privy vaults etc., admitting access by animals or flies, or emitting disagreeable odors, defined as nuisance.

(b) Debris of organic nature must not be collected around house to attract flies. Must be burned or buried or disposed of in other sanitary manner. Declared nuisance.

(c) No offensive pig pen within 100 ft. of well or 30 ft. of street or 50 ft. of inhabited house. Recomm. no pigs be kept within any city limits ~~between~~ between May 1 and Nov. 1st any year.

(d) Local Bd. of Health charged with the abatement of the above.

XLVII Unwholesome manufactory. Abatement.

XLVIII Local Health Officers to have control of sanitation of public buildings.

Nuisances of a public nature are limited to those (or are presumed by tradition or law to affect) which affect public health. This is divided into three classes:

1. Those traditionally accepted.

Disposal of human excreta.

Disposal of other wastes (garbage, manure, refuse).

2. Those which they can prove detrimental to health under general powers for the protection of public health.

Flies, mosquitoes, vermin.

3. Those specifically defined by statute law

Spitting.

Air Contamination (smoke, dust, gas, etc).

Noise.

{Taken from State Statutes quoted above}.

#### Odors, Source of:

1. There is considerable odor issuing from the drainage canal due to the improper use of said canal by the oil refineries in the north end. See Statute 3701 for abatement.

2. Dump fires. No hope for this as long as the present method of trash disposal is tolerated.

3. Packing houses. This is from the fertilizing dep't. It permeates the entire city at certain times. Outside the city limits. Statute 3701 apparently applies to this condition. Here as everywhere "big business" tries to do as it pleases.

. Vent fans from "food shops" of various kinds open into the alleys instead of from the roof as required by Ordinance 7283 of 1921. Permits are necessary from the Bd. of Health before any vent <sup>fans</sup> can be installed. Evidently this ordinance is not being taken very seriously. Law enforcement needed.





5. The piggeries of the North End raise an awful stinch but the nearby inhabitants don't seem to mind it a great deal. They will be automatically eliminated under the new garbage plan.

6. The stock yards of the north end give off their characteristic smell some of which undoubtedly could be eliminated by more thorough and careful cleaning and care of the premises.

7. The collection of garbage and refuse of various sorts about the dam across the Arkansas at Central Avenue gives a very poor impression to any tourist either entering or leaving the city, as well as to anyone going to the Water Plant or to Simms Park.

#### Dust, Origin and Prevention:

A great deal of dust is to be expected most anywhere in Kansas due to the climate and the heavy summer and fall winds.

1. The cleaning of streets is divided into two districts, the "down town district" and the "residential district". The 220 blocks in the former are cleaned daily by 10 "whitewings", with the assistance of four gutter wagons and 4 extra men. It cost the city, during 1921, \$22,439.00 to clean this district, remove the debris and haul it to the dump. In the residential district two power-driven Elgin Sweepers are used, which clean about 8 1/2 mi. daily, making the complete circuit twice monthly. The cost for 1921 was approx. \$13,145.00.

In addition to the pavement there are 250 mi. of dirt roads in the city. Their maintenance is increasing yearly due to heavier traffic vehicles in use. In 1921 1,221 mi. of dirt streets were graded and dragged with the assist. of 2 tractors, 3 graders, 2 smoothers, and several horse drags at a cost of \$18,488.00.

Sprinkling and flushing of the streets is done by 2 3/4-ton trucks equipped for the purpose. With this equipment, the downtown district is covered several times daily in the summer months, the close-in residence less frequently. The residence section proper is flushed by fire hose whenever it is deemed necessary by the Street Department. For sprinkling downtown est. are charged \$.50-\$2.50 per month depending upon frontage.





All sidewalks and store windows are to be cleaned before 7A.M. in the summer and 8 A.M. in the winter.

#### Comment:

Altho a very good attempt is made to keep the streets of the city clean, the results are not always of the best. The Sprinkling trucks at present in use, serve very well the purpose of allaying the dust but as "flushers" they are a failure, and if they were a success no one likes to have the main streets flushed up in your face two or three times daily.

#### RECOMMENDATIONS:

1. The purchase of one (or two if needed) large heavy duty flushing trucks. With these it would be possible to drive down the center of the streets and flush all but the most resistant of debris into the gutters where the gutter wagons could handle it as they do at present.

2. The above operations to be carried out at night so as not to interfere with business etc. in the day time.

#### Industrial Dust:

Two sources of dust were found, one a mill on E. Douglas St., the other the Broom Factory on the West Side. Ordinances stipulate that cyclone dust collectors be used in all such instances. Law enforcement is all that's needed.

#### Rubbish and General Cleanliness:

As noted under "Legal Nuisances", parkings and alleys must be kept clean by the tenants. Junk piles are few and the alleys well kept but the back yards have the accumulated rubbish from both the previous sources. These seem to be beyond the "pale of the law", neither the Fire Dep't. or the Bd. of Health having the power to interfere unless a special complaint is made.

The city has a "Weed Inspector" and he has plenty of them to inspect. During 1922, 4,000 lots were cut at \$1.50 per lot, and 100,00 ft. of parking at 1 cent per foot, making an assessment against the property of \$3,000. The cost to the city was \$2,500. Weeds constitute a serious problem in Wichita and more that (and finances) will have to be allotted to it in the coming





year. An attempt was made last year to only keep the business and nearby areas as funds were insufficient for more extensive campaigns.

### RECOMMENDATIONS:

1. Increase in the budget so that "weeds" can be handled.

2. However I don't think that the entire burden should fall upon the city. In cities that have considerable snow, the householder is responsible for moving the snow within a specified time falling<sup>on</sup> it's fall. I see no reason why the same sort of legislation could not be applied to the "weed problem".

### Flies and Mosquitoes:

1. The State assumes control in the matter of flies and mosquitoes only with regard to common carriers, it reads:

"Regulations for the Control of Infectious, Contagious, and Communicable Diseases Dangerous to the Public Health thru the Means of Common Carriers Engaged in the Transportation of Passengers or Property within the State."

xxxvii Dining cars shall be screened against the entrance of flies and other insects, and it shall be the duty of the dining car employees to destroy flies or other insects that may gain entrance.

lxv All restaurants and lunch rooms, or other places where food is prepared or served at a railway station, shall have doors and windows adequately screened against the entrance of flies during the season of flight of these insects; and all food on display or storage shall be adequately covered.

2. The business sect. of the city was quite free from flies. Produce on display was well screened. Fly paper was much in evidence. The wholesale district however marred an otherwise good picture. Here flies were found in quantities, undoubtedly attracted by the refuse that lay about the grounds. This place needs a week of good solid cleaning and then more care in the handling of food by hucksters, to prevent a recurrence of the present situation.

3. Of course there were flies at the Dessicating Plant and at all the piggeries and Mexican and negro homes in the North End. It was hard to tell which were the piggeries and which the homes. The former needs immediate action as previously recommended. The latter is a problem that is hard to solve without the alteration of national characteristics. The new garbage system will help greatly by indirectly eliminating the piggeries.

4. The West Side Drainage Canal served as a breeding place for mosquitoes. An attempt was made to get this cleaned up but as the property belongs to the railroad before action was obtained the breeding season was past.

5. Mosquitoes are very numerous along the Rivers but there has been no malaria in recent history. It will be impossible to eliminate them unless the entire river beds are cleaned of brush and rubbish, the pools





drained or covered with oil. The condition probably will not be remedied until some serious "outbreak" brings it forcible to the attention of the officials and voters. Such an outbreak is hardly to be expected, as the sandy soil and usually well drained land are not ideal breeding places for mosquitoes altho they do exist about the rivers there as nearly every place else.

#### Rats, Vermin and Stray Animals:

1. Most of the buildings of Wichita are of comparatively recent construction with concrete basements and floors and are thus nearly rat proof altho even in some instances the infestation has persisted in spite of complete modernization. The older buildings are more susceptible and frequently harbor the animals in considerable numbers.

2. On account of the dry climate, vermin infestation is not found to any large extent. Body vermin are readily found in the inmates of the city jail. Bed bugs are found in many of the poorer houses and rooming houses.

3. According to the Dog Ordinance, it is unlawful to keep any dog which is not registered at the city clerk's office and for which a tax of \$1 is required for every male dog and \$2.50 for every female. If the dog is dangerous if it barks or howls or otherwise distrubs the neighbors, it is unlawful to keep the dog within the city limits under penalty of \$20 fine. From March 15 to Aug. 15 it is unlawful to allow dogs to run lose at night, this "slip" carrying the same fine as the above. There are 7,000 dogs in Wichita 2,000 of which are worth tagging. The dog catcher is a member of the police dep't. and receives a monthly salary guaranteed and a bonus of \$.50 per animal. The pound is in the north end and if the dogs are not claimed the dogs are exacated and turned over to the Dessicating Plant. At the time of inspection the pound contained about a 100 animals, and considering the rapid turnover, and with an enthusiastic dog catcher in control, the city should be freed of these "strays".

#### Stables and Manure:

There is only one stable in the busines sect. of the city: this was an old establishment, but clean, well kept, the feed and stray in good condition and no accumulation of manure.





Under state law, a stable closer than 25 ft. to the dwelling of another person is a nuisance and capable of abatement by local health officers. Also if the odor is disquiting to the neighborhood. In the more outlying portions of town are, of course, many stables owned by hucksters, light express haulers, old time garbage collectors and track haulers. These like their owners gave no evidence of care or sanitary control. "Squatter town" in fact has an odor, a population, a sanitary code, piggeries, stables, etc all it's own and seems to enjoy it all.

### Smoke:

Under Ordinance 7282 of 1921, "dense smoke" is defined as smoke opaque at the point of emission. Such, within the city limits, is declared a nuisance and is prohibited. If it is unavoidable and smokestack laws have been complied with, a permit maybe issued by the fire marshall by authority of the Board of Commissioners. This does not apply to pure dwelling houses but does not apply to rail-roads. The penalty for violation is \$100.00 fine.

Few complaints have been lodged against factories or business houses and all complaints have been adjusted satisfactory. The larger buildings mostly burn oil, whereas the smaller buildings that have not followed suit, have eliminated much of the smoke by efficient stoking. Locomotives do not stoke in the yards except in emergency

The heaviest smoke comes largely from the factory district in the North End. Some of the smoke comes from factories outside the city limits and blows into the city, making a heavy cloud over the North End. These factories are "booked" for an investigation.

### Unnecessary Noises:

The street noises in Wichita are terrible. The town is usually full of trucks going to and from the oil fields. Every truck has the exhaust wide open and the spark retarded as much as possible so that the engines fairly "howl", in fact it sounds something like a sham battle. The city Ordinances prohibit "open cut-out " but no one would thing that a muffler





was known in that part of the world. Law enforcement for several weeks, with a lot of good stiff fines and a night in jail would clear up this condition in a short time.

Most of the factories are located so that the noises produced bother no one.

Last summer the residents in the region of the Swimming Pool located at 12th St. on the Big River, petitioned the City Manager to close the place as it was "a noisy nuisance at all hours". Others petitioned that it be retained--this was done, but the pool adequately patrolled and vacated by 9 P.M.

### Piggeries:

January the 1st 1923 was the last day for piggeries within the city limits of Wichita even including the North End (Squattertown). Those maintained by the packing houses are nearly within the city limits (in fact some few are: these are controlled by special permits and must be kept in a sanitary condition or the permit is revoked) and it is unfortunate that they too do not come under the jurisdiction of the Bd. of Health.

### Squattertown Dump:

This is a health and fire menace as well as a sanitary nuisance. It is fully discussed under "Zoning".

## INDUSTRIAL HYGIENE

### 1. Legal Regulation:

Ord. 5895, 1918 of the city provides that every factory shall provide 500 cu. ft. of air for every employee, and that this fresh air shall neutralize all impurities; that the plant must be as free from effluvia (as possible) impurities and dust; that there shall be provided a sufficient number of seats for all female employees; that there shall be one toilet per every 18 employees; that the City Physician shall inspect such factories; fine \$300.00.

Paragraphs 3700-3701 of the State Statutes designate certain





Conditions of factories as nuisances and subject to abatement by local health officers.

In the Statutes for 1903 is the following:

Ch. 228      Commiss. of Labor and his deputies to inspect factories and compel installation of safety devices as deemed necessary.

Ch. 226      "Workmens Compensation and Employer's Liability Act". Lengthy discussion of limitations of this act not copied here.

The Statutes of 1917, Chapter 227 defines the "Child Labor Law", defines how long they shall work, and at what age, and how much schooling they must receive.

#### Inspection of the Coleman Lamp Works:

As soon as it was found that a sanitary inspection of the packing houses were in order, the permits to visit the places were at once cancelled by the managers of said establishments. Being outside of the city limits nothing further was done about the matter but needless to say if their houses had "been in order" they would not hesitate to make known the facts. If they looked anything like some of them "smelt" considerable cleaning would not be amiss.

The plant above mentioned had the reputation of being the best kept plant in the city and one of the few in Kansas where an attempt had been made to secure adequate industrial hygiene. Hence it's selection for inspection.

The factory occupies a 200 ft. frontage on the east side of the 2nd block on N. Francis St. The two story, brick, fireproof, plant was in addition well equipped with fire extinguishers. In the rear were ware and store houses which were reported by the firemarshall as sanitary and fireproof—they were closed at the time of inspection.

Just north of the present factory a one story, fireproof stove works is to be constructed at a cost of \$15,000, having a daily output of 150. Besides having nearly the entire surface of windows in both buildings, the lamp factory is to have installed monitors, making the entire plant of daylight





construction. The new works will permit the company to keep its employees working 12 per yr. whereas at present a layoff is the usual thing during the summer.

The offices and first aid room are on the 2nd floor, have floors of concrete, well lighted and ventilated, and were clean and neat.

The machine room on the first floor had, concrete floor, steel and glass fronting of 59% opening aperture, fans in both sides of the room, clean floors, machines equipped with cutting pans, all shafting and belting overhead, and all exposed parts of machines screened.

The polishing room, adjoining was as the above, with the addition of suction dust collectors provided to prevent contamination of the air by the metallic dust. Never the less in this room originate from 40-45 cases of "nickel eczema" per year which altho not incapacitating calls for a change of environment.

The electroplating room in the rear of the building had; vats of lead where all polished parts were given their base of nickel, the floor of concrete and sawdust showed the effect of acid burns, numerous inlet and exhaust fans which however failed to secure adequate and proper ventilation, and poor lighting. The vats are supplied with electric current of low voltage and high amperage, perfectly harmless, which probably accounted for the exposed switches. All other switches are enclosed; no electrical accidents have occurred in the plant.

The brass finishing room had; two sides of steel and windows, lineshafts to keep the air circulating, and heavy duty electric fans near all forges, spotless floors, and an irreproachable general condition.

The testing room for gas heating coils was very hot in spite of lineshaft and electric fans. There was forced ventilation above the testing racks. The room was enterable from three sides at each of the three places were switches and valves isolating the testing racks from the electric and gasoline mains.





The mantle room, second floor facing street had ample light and ventilation and the exclusively employed women employees were comfortably seated.

Medical Inspection of the factory had been in progress over a year at the time of inspection. Nursing had been instituted two years ago. Monthly reports are turned in to the Wichita Public Health Nursing Assoc. So far the reports are of little value merely showing the work that is being done and does not show the expected decrease in sickness, accidents, and sick benefits. A medical examination is required upon application for positions and all applicants for transfers to other branches. No routine examinations are made but the foreman is responsible for reporting to the office any employee who is not or does not seem to be up to par. The plant doctor is a private physician and subject to call at all times and attends those found in need of his attention at their homes. A nurse visits all the sick and also makes routine calls to look after the general living conditions. In case any employee takes sick in line of duty, the company furnishes free medical except in the case of major operations. Operations made necessary by accident are covered by "Employer's Liability Insurance". Consultation and advice is free, but medicines, operations and specialists fees must be defrayed by the employee. All are vaccinated against small pox and typhoid.

All the employees are entitled to the sick benefits which starts on the 4th day at half pay; accident benefit on the 4th day three quarters pay. The maximum pd. in either case is \$18.75 weekly, 25% above that required in the "Workman's Compensation Act", which does not become effective until the 6th day.

Comment:

Wichita and Kansas as a whole are decidedly lax in realizing the benefits of Industrial Hygiene and very few of the plants have anything like a workable or commendable system, most of them have none. For that reason this plant stands out alone on account of its accident room, nurse in:





charge of the well equipped room every afternoon, daily calls by a physician, visiting nurse, sick benifits, adequate lighting and ventilation in nearly all dep't., clean well kept rooms, comfortable employes(female), and the attempts made to secure efficient dust collection.

#### RECOMMENDATION:

There must be some way to eliminate the 15% incidence of "nickle eczema." This seems to be directly due to contamination received in the polish ing room. I don't know enough about the situation to know if this is due to cutaneous absorbtion or irritation, inhalation, or ingestion. At any rate a little experimental work could be undertaken to determine the efficiency of rubber gloves and mouth-nose respirators in eliminatieng the condition.

#### ....HOUSING....

In 1921, Wichita stood third in the 10th Federal District, in building permits. In 1922 the total number of permits (as far as available) was 3 177, representating an outlay of \$5 937 514 to be utilized in the constru - ction of the following: 1,661 frame bldgs.; 1,060 fram additions; 93 brick; 66 brick additions; 195 cament stone; 22 cement stone additions; 5 rein - forced concrete; 17 hollow tile; 35 Frame stucco; 15 concrete boards; 8 iron and steel. They will be used as follows: churches 8; amusement 4; factories 4; garages 8; Garages(private) 712; gas service stations 20; hospital 1; office buildings 5; fire station 1; schools 2; sheds 65; stables etc. 9; stores 127; other non residential 6; one family residences 1204; two family residences 50; multi-family resid. 20; hotel 1. Total residential buildings, 1,275; cost \$4,561,185. Average Cost of resid. bldg. \$2,593.00

Business men say that Wichita has more apt. houses than any other city in the Southwest. In the year 1922 housing was furnished for 1,366 families (Insp. report). Wichita has 200 apartments ranging from 4 - 52 family units, excluding many apartments under the 4 family capacity. One of the new apartments is expected to have 100 family units.





The tenements of Wichita maybe divided into three districts, viz:the North End where labor is supplied to the packing houses,the Santa Fe yards and the mills and factories of that area;the district surrounding the wholesale area in the south,runing up to as far as the Union Station Yards;a small and better district surrounding the Orient shops and the Broom Factory The first or "Little Mexico" is in a class by itself.

Hotels,apartments and rooming houses are under the jurisdiction of the State Hotel Commissioner,who in addition has a deputy employed by the Wichita Board of Health,who bears the title of"City Rooming-house Inspector". It was he who conducted us thru(it's agood thing that some one conducted us thru) the following "rooming house" at 220 1/2 N.Main St:

#### Inspection of the Keystone Rooms:

The establishment is an upstairs affair entered thru the typical dark,dirty,creaky stairway.At the top was the "office",consisting of a shelf, a small ledger with an indistinct "Register" upon it ,a license issued by the State Hotel Commiasion(which makes one think that such commissions are useless drains upon taxation) was distinguishable above the antique makeshift of a de-sk and a one-eyed"smily" manager! The office " took up the entire landing and from it ran the hall,the doors opening into the rooms along the sides.A water fountain cooler,with a mangled tin cup chained to its side stood watch over the rough,nail protruding,splintered floor.

The rooms numbered 22,contained 30 beds and was rated at 47 capacity.There was practially no fire escapes,the windows looked as if they had never been cleaned,delapitated furniture(what little there was of it),washing conveniences supplied in only the "best" rooms,no ventilation,large sections of plaster missing,light very poor,bare floors,only an attempy made at curtaining the most prominent rooms,dirt everywhere and bed bugs by the legion .

The toilets,one upon each floor,were a riot of filth and can only be described by resorting to the vernacular of the gutter.They did however possess running water.In each case the furniture consisted of a wasbowl and





stool. In the lower room there was what might have been a bath tub at one time. There was no attempt at cleanliness and how even the most degraded could stay in such a hole is beyond me.

Comment: Inquiry disclosed the fact that the building was the property of one of the City Commissioners. I presume the same thing is found to some degree in every city in the world. Such conditions will continue to thrive as long as "rotten politics" exists, public officials of low character elected, lack of law enforcement persists.

Recommendation:

An active political interest by every citizen interested in "Good Government". That's the crux of the situation.

Ventilation of the Orpheum Theatre:

The Orpheum Theater, 1st and Lawrence Streets, was opened on Labor Day, 1922. Inspection of the ventilation system (By Mr. Brown alone) showed a simple "plenum" system. The air inlet is on the north side facing an open court yard, is 8X12 ft., covered by a coarse grill. The air shaft then passes down under the stage where the ventilation plant is situated. As the shaft makes the turn to become horizontal, it enters the spray chamber, in which numerous perforated pipes across the top of the chamber wash and moisten the air. From this it passes into an expanded portion of the huge tube containing uprights and screens calculated to impede the carrying of drops of water thru the system. Beyond this the tube passes over 40 ft. of steam pipe coils, from this passing upward to the distributing pipes. Power to move the column of air is supplied by rotary electric fans in the inlet tube.

From the washing and heating mains the leads run to different parts of the theater. Eight 8 X 25" wall registers admit the warm fresh air on the lower floor. The balconies are heated and ventilated by a 6 X 50" slot back of the "Spanish Roof" on either side of the stage, and numerous 12 X 12" wall registers. The smaller rooms of the place are also supplied by similar though smaller pipes.





Air in the building is circulated by electric fans, 78 in all situated around the wall and suspended in clusters.

Exhaust of the spent air is secured by a large vent in the ceiling, in the center of the theater, covered, and 8 ft. in diameter. There are also many smaller vents high in the walls of either side, and in the dressing and rest rooms this system is the only one utilized.

According to the Building Inspector the ventilation was ample.

# .....INFECTIOUS DISEASES.....

## 1. Reportable Diseases:

### Group I

Actinomycosis  
Anthrax  
Chickenpox  
Cholera Asiatica  
Cholera Nostras (When then above  
present or threatened)  
Continued fever of 7 days.  
Dengue  
Diphtheria  
Dysentery  
Amebic  
Bacillary  
Diarrhoea & Enteritis  
(under 2 yrs)  
Erysipales  
Favus  
German Measles  
Glanders  
Hookworm Disease  
Influenza  
Leprosy  
Malaria  
Measles

Meningitis  
Epidemic Cerebrospinal  
Tb.  
Mumps  
Oph-Neonat.  
Para Typhoid  
Pneumonia (all forms)  
Poliomyelitis  
Rabies  
Scarlet  
Smallpox  
Tetanus  
Trachoma  
Tuberculosis (all forms; the organ or  
part affected in each case. On special  
card req. by sect. 10129 GS 1915.)  
Typhoid  
Typhus  
Pertussis  
Yellow Fever.

### Group II

Syphilis

Gonococcus Infection.

Chancroid.

### Group III

Food Poisoning

### Group IV

Pellegra.

Cancer.

### Group V.

Arsenic Poisoning  
Brass "  
C O gas "  
Lead "  
Mercury "  
Natural Gas "  
Phosphorus "  
Wood Alcohol "

Naptha Poisoning  
C Bisulphide "  
Dinitrobenzene "  
Caisson Disease  
Any other disease  
the result of  
occupation.





## 2. Quarantine Regulations:

( See part II, Bd. of Health Reg.: "Regulat. for the Quarantine and Isolation of Infectious, Contagious, or Communicable Diseases, Dangerous, to the Public Health" Pages 38-- 55, and pages 17--20.

## 3. Method of Disinfection and Fumigation:

Rule XVII of the State Bd. of Health under the heading "Control of Communicable Diseases" reads as follows:

"A thorough and effective disinfection of all premises shall be required after the termination of cases only of cholera, scarlet fever, small pox, diphtheria, epid. cerebro spinal menig., epid. poliomyelitis, typhoid fever (room of patient only) puerperal fever (room of patient only), and tuberculosis.

Methods to be employed are laid down in pages 76 - 77 of the "Laws, Rules, and Regulations of the Board of Health, State of Kansas", which were appended to Mr. H.D.H. Brown's Survey of the City of Wichita. (The supply was exhausted and I was unable to secure one ).

## 4. Anti-Tuberculosis Measures:

See Rule 10, page 64, ibid. (Conditions under which common carriers may transport consumptives)

See sect. on Tuberculosis, ibid, pages 11 - 17.

## 5. Control of Epidemics:

All diseases are considered under the quarantine regulations. The 1st paragraph of the quarantine law states, "or any disease dangerous to the public health", and this places any epidemic in the hands of the local health officers just as the recognized epidemic diseases are specifically placed.

## 6. Venereal Regulation:

Syphilis, Gonorrhoea, and Chancroid are all reportable.

Kansas has a very effective method of dealing with these cases and Wichita has reinforced them by a city Ordinance in order to facilitate matters. It comes down to the facts that arrest can be made upon suspicion, examination is made by a local health officer, if the patient can pay for treatment and will be treated he is allowed to do so, if not able to do so,





must be sent to state hospital or city clinic, failure of either of the above means forfeiture of bond and internment untill cured.

See pages 49 -- 55 , Rules State Board

See Ibid pages 34, 35, 36, 37, 48, 56, 57, 74, and 80.

See Ordinance No. 6009. Also forms. (Mr Brown's Survey).  
Also Ordinances No. 6010 and 6011, same sheet.

See Report of Bd. of Health and City Lab. under "Miscellaneous".

#### .....SCHOOLS.....

##### 1. Inspection of the Roosevelt School: (Douglas and Madison).

This is the newest Intermediate School in Wichita. It was just being completed while I was there and was later on in the summer Inspected by Mr. Brown by himself from whom the following report is taken in its entirety. It will accommodate 900 pupils. The buildings are of the latest brick and steel fireproof construction, occupies a tract of 68 acres and is valued at \$150,000.

There are about 21 classrooms each seating on the average 44 students. From the picture it may be seen that there is plenty of light. Each classroom rec. light from 5 of these windows on the average. From one to two sides are covered by pure slate blackboards. Each room has coat closets and in these closets are placed the ventilation vents. The inlet <sup>is</sup> for fresh heated air at the front of the room. The ventilation system is discussed later.

The halls are of concrete and form a "U" on each floor, the base of the "U" being parallel to Douglas Street. The building is divided into an east and a west wing by the auditorium in the center. Stairs of concrete and steel, 12' wide go up in both wings. In each hall there are 9 water fountains and 4 steam radiators.

Toilets are on the 1st and 3rd floors. The stools are of the automatic flush type and in the girls' toilets are enclosed in booths, each having a separate air vent. The urinals in the boys' toilets are of the periodic automatic flush type, with raised porcelain base. Combining the





facilities on the two floors, the ones on the first floor being largest, for the boys, there are 37 urinals, 16 stools, 3 lavatories and 1 sink. For the girls, 3 lavatories, and 38 stools. All are of the cut-out porcelain type. Besides these, toilets are furnished with paper towels.

An emergency room on the 2nd floor contains an examining table, first aid kit and toilet.

The typewriting room on the 3rd floor contains 24 Royal machines. The new front library off that floor is to become a music room. How these two factors will work together is not known.

Manual training is lighted by 19 windows, has 2 doors and a double air set, an air set being the minimum of each room and consisting of one inlet and outlet. The sewing room, with 8 machines is a "single" room, - viz has 5 windows and one air set. The Domestic Room is equipped with a double air set, 1 complete set of equipment for the course with individual sinks, quadruple gas ovens, large sink and two preparation tables. A store room adjoins. The Cafeteria, a part of the Dom. Sc. outlay is equipped with steam table and coffee urn. Kitchen of cafeteria has a large gas range, sanitary cupboard, sink with grease trap, and 1000 lb. icebox.

The auditorium situated on the 2nd and 3rd floors has a seating capacity of 635 below and 175 above. The ceiling is 25 foot and furnished with 9 heavy indirect lighting outfits (same system used thruout). There are 8 windows on either side 38" X 36". Ventilation by 8 air sets. Heating by 6 steam radiators in addition.

The basement contains the gymnasium, showers, lockers, janitors' (5) offices, and ventilating plant. The ceiling of the gym is sound proof and 24 ft. high, equipped with sliding divisions so that the floor can be completely separated and made private for boys and girls on separate sides. The boys' shower contains 2 urinals, 1 stool, 6 showers, 1 lavatory, 1 air set and sky light. A check room separates the girls' and boys' showers and serves both. There are also individual locker rooms. Girls' shower contains 1 stool, 1 lavatory, 6 dressing rooms, and 3 showers, all enclosed.





The "engine room" contains the ventilating plant. This consists of 2 large Sturtevant Fans, Design 3 Size 9. Air is taken from the rear besides the auditorium, sprayed, heated by steam, passed thru the steam power fans, each of which discharges into a 10 x 4 foot air shaft and feeds the entire building. All heating is by steam and warm air as described and is under automatic thermostatic control.

Fire escapes, 4, one on each side and one behind each wing of the auditorium.

Power House is of concrete and brick, 200 ft. south of the school. It maintains 200 h.p. boilers under 125 lbs. pressure, and burns oil.

The grounds are as yet undeveloped. Grass will have to be planted, and the grounds better drained. When completed, it will furnish a splendid playground and athletic field. As may be seen from the city map, the school owns a great tract of ground south of the school and this will develop into a fine recreation grounds. An open air salt water swimming pool is planned.

## 2. Medical Inspection of Children:

No doctors are regularly employed but there are 4 school nurses including one supervisor, all full time, and 1 dentist half time. One colored nurse and dentist sufficient to take care of the colored schools. General medical supervision is under the Bd. of Education, doctors volunteering their time. Clinics in eye, nose, and throat are the ones most frequently held.

School nurses do all the examining on the school children. If they think necessary they refer the child to the family physician, or send it to the town clinic. It is the policy to give the disease the benefit of the doubt and let a regular physician determine its real status.

Routine examinations are made once per year at least. Defects are followed and special cases are gone over every 6 mon. About 12,000 children are gone over- little being done in the high school.

Contagious work is with the Bd. of Health and the nurses follow up the cases in the homes. They inspect cases of seeming neglect and





and report to the appropriate charitable organization if there is need.

There is a Juvenile Officer for boys and girls and a truant officer.

### 3. Educational Institutions:

Following is a list of the schools in Wichita:  
 Fairmount College 700 students. Congret.  
 Friends University, 205 " Quaker  
 Mt. Carmel Academy Catholic  
 Dague Business College )  
 Wichita " " ) 2,500 Students.  
 " Commerc. " )  
 Rae Indian Instit.  
 Wichita Automobile School  
 Wichita Telegraph College  
 Metropopital Conser. of Musis.  
 Wichita " " "  
 "Chiropractic College"  
 Dress making school  
 School of Pharmacy  
 5 Parochial Schools.

The city schools are as follows: 1 High, 4 Intermediate, and 27 grade, including 4 one-room schools. 500 teachers are employed, with salaries averageing \$1958 for high, \$1735 for intermediate, and \$1632 for grade school teachers. In 1921 the enrollment was 15,221, excluding 1,068 in the kindergarten.

The cost of education, per pupil in Wichita Schools is

compared as follows:	Wichita	\$ 133.32
	Topeka	102.04
	St. Louis	85.00
	Average of 34	
	cities, the size of Wichita	
	thruout the nation (Cornell	
	Survey)	133.98

\$68 per yr. is the maximum expenditure necessary for a high school student to make. \$500 is the average at Friends and \$600 at Fairmount.

### 4. Diseases Preventing Attendance at School:

Rules of the State Bd. of Health.

Page 18, Sect. 10147. No person afflicted with any infectious, or contagious disease dangerous to the public health shall be admitted into any public or private school. No parent, guardian, tutor or other person having charge or control of children, whose residence is infected with smallpox, cholera, scarlet fever, measles, diphtheria, epid. cerebrospinal mening., or other infectious or contagious disease dangerous to the public health, shall allow or permit them to attend any public or private school during the continuance of such infection, or until the premises have been thoroughly disinfected and all danger from contagion is passed.

8890. No pupil affected with any contagious disease shall be





allowed to attend any common school or remain in any school room while so infected. (Children cannot be excluded "until after being successfully vaccinated at a time when the disease of smallpox does not exist")

Under Rule XXXVI

Symptoms:

Sore Throat or Tonsillitis  
Any eruption of the skin or rash.  
Fever, or catarrhal symptoms with fever.  
Severe cough or colds.

Specific Diseases:

Tb.  
All quarantiable diseases.  
Contagious conjunctivitis.  
Impetigo Cont.  
Ring worm) If under treatment Health Officer may readmit.  
Scabies )  
Venereal Diseases.

Quarantinable Diseases:

See part II, Bd. of Health Reg.: Regulat. for the Quarantine etc"  
Pages 38 - 55 and 17 -- 20.

.....MISCELLANEOUS.....

1. Markets, Stores, Soda Fountains:

The stores and markets are well lighted, ventilated, and screened. The floors, ceilings and walls are kept clean and sanitary. The store rooms and back yards are clean and in good condition, free from sanitary and fire nuisances. The garbage and trash was disposed of in accordance with "Garbage Regul." Toilet are fly proof, clean and sanitary, with a window that opens to the outside of the building, and the door must be kept closed at all times. The refrigerators, chopping blocks, tools, machines, show cases, counters, shelves, and food containers are kept in a satisfactory condition. All food is well protected, from flies, dust, and other insects. Most of the stores are in good condition. The soda fountain and confectionaries maintain an excellent sanitary condition. All dishes are sterilized once per day and are washed in running water each time they are used. A great many places use paper dishes. All syrups pumps, spirit bottles and containers are well washed.

The largest public market in the city is owned by the Wichita merchants. The building is of terra cotta brick, one story, second story capable of addition. Four entrances lead to the concourse which is 48 x 66 feet. 15 temporary market stalls and 14 permanent store locations are





arranged around the concourse. A drug store, cafe and kitchen, a fruit shop a coffee shop and similar shops complete the circle. There are 14 market stalls and mens and womens waiting rooms. Farmers can unload produce in the rear. The meat market is in the center and has a compressed ammonia plant

There are over 700 establishments retailing food to the city. All are under the Bd. of Health Eating House Inspect. In a tour of inspection which is made each month routinely, the first 45 places were visited by one of the writers. A few of the dirty places are noted:

Liberty Fish Market: Toilet not air tight. Screens needed. Ammonia tanks leaking. Old gunnysacks, kegs, etc, piled on discarded ice box. Order.

Dunn Mercantile No. 8: Meat hooks sl. rusty in a fairly clean ice box. Counter iced and clean but lard case dirty. Floor of clean sawdust. Toilet open and bad smelling. Garbage can consisted of barrel, no lid. Canned stock dusty and one can swelled stock found. No refrigeration of vegetables. Slat of butter refrigerator dirty. Order.

Kahlentao Bros. (Wichita Candy Kitchen): Open garbage contained. Soda fountain showed dirty syrup pumps and dispensers. Candy case, lining dirty, one cockroach. Order.

Klenthos Bros. (Wichita Cafe) Just opened. Kitchen hot, exhaust fan not operating. Toilet dirty, floor unfinished. Floor dirty, no system to anything. Ice box leaking and meat laid directly on ice. No license posted. Order.

Ned Koenigaman, "Beer Garden": Cracked coffee cups in service. Dirty floor. Cockroaches about water cooler and dirty water. Spiders and flies in the pie racks. Track under the counter. Cigarettes on sale. Order.

3 Combination fountain and lunch, 1 grocery and 1 meat market were given perfect scores.

The inspectors rating for the month was: 300 groceries visited, on the whole clean and sanitary, 4 given perfect scores, 18 above 98%. 17 fell below 80% which is the mark required for passing. The grading is based upon construction of building, cleanliness inside, whether or not food is exposed, the condition of toilet and wash room and the cleanliness of employees.

Of 36 soda fountains inspected, 16 were above 95, 8 below 90. They are graded upon sanitation, condition of supplies and cleanliness of buildings.

#### Slaughter Houses and Meat Inspection:





Few criticisms can be made in regard to the above; the houses are fairly well lighted and ventilated, floors of a non-absorbent material which are flushed and cleaned at least daily, all have running water and sewer, whitewashed walls, rigidly screened, equipment clean, debris removed once daily for incineration or dessication. The meat is stored in refrigerator rooms.

In all houses conducting an interstate business the Bureau of Animal Industry have inspectors placed, who stamp all meat found O.K. The meat in the city shops is inspected by the city food inspector.

#### Kitchens of Hotels and Restaurants:

The kitchens of hotels and restaurants are well lighted, screened, plumbed and ventilated. Most of them have exhaust pipes to remove fumes and odors. The walls, ceilings and floors must be kept clean. The sinks and washing machines are connected with grease traps to prevent grease from entering the sewer. All stoves, hot plates, ovens and toasters are kept free from grease and dirt. The refrigerators are kept clean and no food in them is allowed to come in contact with the ice, being placed on trays. The steam tables are clean and the water removed often enough to insure cleanliness. All utensils are washed in soap after using. No cracked dishes are allowed. The employees are not allowed to smoke while preparing food; they must wear clean clothes. Persons with infect., contag., or communicable diseases are not allowed.

Several of the conditions found follow:

Wolfe and Parrott Cafeteria, 115 S. Main: Bakery: Dirty saw dust floor. Dusty cobwebs. Icebox old and dirty. Bread mixer, doughnut machine, dirty. Lard barrel open. Floor and wall besmudged with grease and debris. Plumbing on the dishwasher damaged so that all the water runs across the floor. Garbage cans open but empty and dirty. Kitchen: ranges and chopping blocks clean. Shelves dirty. Back screens do not close. Dirty looking meat in ice chest. Garbage cans dirty. Many flies. Pie Shop: Shelves in very poor condition dirt and refuse. Ovens dirty. Cream whipper dirty. Floor of concrete but littered and foul. Spiders and dirt in pie racks. Dish Washing: poor. Food counter: Refuse under it. Floor dirty, but clean where visible to public. One exhaust fan working. 4 pages of Written Orders.

King Bee Hamburger Stand: Cracked ware. Broken.

Manhattan Cafe: Iceboxes and hotplates greasy and dirty. Knives and forks stored on old newspapers. Window sills show dust, dirt and grease. Order.

Milliken and Norris: Dark and dingy, wall and ceiling and kitchen





vent in bad shape. Steam table and ice boxes dirty. Kitchen screens dirty. Order to rejuvenate entire place or close.

Princess Lunch: Iceboxes dirty. Roaches. Grease pans under gas jet dirty. Floor dirty. Screens in poor shape. Order.

In an "order" the proprietor is given a written order to carry out within the next 24 hrs if referring to cleanliness or from 3 - 7 days if it involves reconstruction. If not carried out in that time the place is closed. Places ranking over 90% rec. a white card to hang in the window; 80 - 90 a blue card; 60 - 80 a red card indicating that the place is condemned as an eating house; below 60 the place is closed.

### Barber Shops:

Barber shops are under the supervision of the State Barber Commissioner who licenses and inspects them. Superficially the shops and barbers are much the same here as any where else. They make an attempt at cleanliness but none or very few of them understand the principles of asepsis and consequently none are applied to the use of combs, brushes, shaving mugs, scissors, clippers etc. In general the places were well kept, the floors scrubbed and kept clean of hair etc. The State Barber Bd. requires a physical examination of all applicants for license and according to the rules of the State Bd. of Health all diseases are excluded.

### Distribution of Educational and Other Pamphlets:

Is mainly carried out thru the Wichita Public Health Nursing Assoc. This group distributes pamphlets on all subjects pertaining to health to sent them from various sources. They have to do mainly with the dissemination of the proper popular knowledge of the infectious diseases, pregnancy, infant and child hygiene and nutrition.

The Bd. of Health disperses literature upon venereal disease and dairying principles. Further any publication of the State Bd. of Health, all Special Disease Bulletins, etc., are available to any person in Kansas. (as long as the supply lasts).

The Anti-Vaccinationists League of Kansas dispense literature, typical of their kind, which in some cases more than keeps pace with that sent out by the State Bd. of Health.





Other Activities of the Bd. of Health:

Budget, Health and Sanitation, for 1922.

Item	No.	Per Month	Proposed Budget
Salary of Director.	1	\$275	\$33 00
" " Sect.	1	100	1200
" " Chief Inspector.	1	175	2100
" " Inspector, plus car.	2	175	4200
" " " " "	1	140	1680
" " Stenographer.	1	90	1080
" " Milk Inspector.	1	175	2100
" And Exp. of Dump men.	3		2500
Expense of Cutting Weeds.			2000
Office Supplies.			500
Disinfectants			500
Oil and Gasoline			500
Exp. of Oper. City Clinic			1700
Misc. Exp. Milk Inspector.			700
Salary of Bacteriologist.			2400
Misc. Exp. lab.			2100
Sal. Sup't. Munic. Farm.			1200
" Matron " "			600
" Cook: " "			720
Food and Supplies, Prisoners Munic. Farm.			3500
Misc. Exp. Munic. Farm.			800

## Street Dep't.

Salaries	5520
Maintaining Paved Streets	13500
Labor Maintaining Unpaved Streets	20000
Supplies for Tractors	1000
Maintaining Crossing and Boxes	2500
Labor for Street Cleaning.	30000
Labor and Maintenance of Power Sweepers	10000
Main. of St. Cleaning Dep't.	5000
Office Supplies.	500
Misc.	1280
Main. Of St. Equip.	2000
New St. Equip.	3000
Main. and Renewel of St. Signs.	1700

## Sewer Dep't.

18000

Total. . . .

\$ 150,380.

Annual Report of the Bd. of Health. 1921.

<u>City Physician</u>		<u>Sanitation</u>	
Quarantines, number	3903	Complaints investig.	2404
Releases, number.	3334	Alleys inspect.	1482
Return on Quarantine	320	Living condit. invest.	356
Breaking "	1868	Restaurants inspect.	1061
Investigated for Contag.	595	Bakeries "	279
Smallpox Vaccin.	478	Groceries "	2340
Venereal Dis. Examin.	91	Meat Markets "	2252
Munic. Farm Visits.	2037	Rooming houses"	1303
R Female venereal.	401	Notices given: Written	1943
R Male "	2412	Verbal	1422
Consultations		Phone	256





<u>Laboratory</u>		<u>Contagious Diseases Reported.</u>	
Diphtheria Culture	12018	Measles	601
" Innoculations	1016	Diphtheria	892
Milk, Bact. and Chemic.	2624	Smallpox	186
Smallpox vaccin.	369	Scarlet Fever	465
Typhoid vaccine, doses.	96	Chickenpox	397
Wassermanns	756	Syphilis	208
Water samples	906	Gonorrhea	351
Smear for G.C.	426		
		Grand Total. . . .	17938.

### Report of the Municipal Farm:

Meals served, 23 842 @ 12.5 = \$305.11.  
 Number of days work in city parks and farm, by months: 164 185 246 160 223  
 273 265 338 348 351 257 238.  
 Men in Jail: 301 (Dope 28, Drunks 117, Vags 55, Misdemeanors 91)  
     Serving more than one sentence 40  
     Number of Incarcerations 358  
     " " Escapes from farm and Parks 15  
 Inmates of pest house, men 22, women 12; Total 34.  
     Smallpox 20.  
     Measles 3  
     Diph. 10  
     Mumps 1  
 Total amt. collected, . . . . \$159.00

A visit to the Munic. Farm showed a recently renovated est. in good sanitary condition; clean, cool cells, of reinforced concrete; new furniture whitewashed walls; well drained; with well fed and apparently contented prisoners. The price of meals had dropped to 10 cents. The inmates are those who have rec. "time" sentences from the police court. They work at the farm and about the parks. The pest house is located on an adjoining knoll.

While I was in Wichita I had the pleasure of visiting the Female and Male Venereal Clinics. The former are held every morning at 10 when the occasion demands otherwise twice weekly, the latter is held at the convenience of the health officer usually in the P.M. All cases coming into the city jail, who may be suspicious, are examined for venereal disease, a positive report from the laboratory meaning that the individual can be detained legally until rid of the infection. All those who volunteer are likewise treated. The R is free. I am surprised that the total number of treatments does not exceed that given in the report as the two times that I attended the female clinic 13 and 21 treatments were given respectively, on patients ranging in age from 9 to 54. The city physician not only goes thru the routine





venereal treatment but has some very unusual features(which the State Health Officer,who also visited the clinic when I did,said,"was the most efficient in the State") of his own which seem to clear up the cases in a much shorter time,than is usually the case.

District Nursing and Social Service:

This is carried out by the Wichita Public Health Nursing Assoc. It's nature and extent maybe estimated from the "First Annual Report" attached and the" 1922 Report" in Mr. Brown's Survey.

Charitable Organizations:

Last summer Wichita,following the plan as adopted by a large number of American Cities , had her first "Community Chest" filling the quota of \$215 000 without great difficulty.At present this seems to be the most efficient plan for the maintenance of charities that has been devised. It insures the elimination of;innumerable"tag days" and similar pests,  
ic  
unworthy charities,year round solitation , seperate"overheads",and does insure;that every worthy charity will get it's share(in many instances more that they would have gotten in a singly conducted campaign) a carefully compiled budget;one grand ,concentrated campaign;wise expenditure(as the budgets of the various organizations are carefully gone into),no overlapping of work;no competition in the field of charity; adequate supervision.

The budget better than anything else <sup>gives</sup> the value and degree of the different organizations:

1. Boy Scouts	\$13500	15.Salvation Army	\$ 6000
2. Christian Serv.League	7500	16.St.John's Institute	3000
3. Council of Soc. Agencies	6500	17.Soc. for the Friendless	500
4. Fresh Air Baby Camp	1500	18.Sedgwick Co.Tb.Commiss.	2500
5. Indep.Order B'Nai B'Rith	800	19.Wichita Childrens Home	6500
6. Kansas Child.Home Soc.	750	20.Y.M.C.A.	30000
7. Kansas Humane Society	500	21.Y.W.C.A.	24000
8. League for Social Work	23000	22.Wichita Hospt.	10000
9. Free Milk and Ice Fund	1000	23.St.Francis "	9000
10.Near East Relief	15000	24.Wesley Free Dispensary	2500
11.Phyllis Wheatley Home.(Col.)	1250	25.Wesley Hospital.	51000
12.Public.Health Nuree Assoc.	2000	Campaign Budget	5000
13.Queen's Daughters	1000	Emergency Fund	20000
14.Red Cross(Co-op with Amer. Legion and Auxillary)	15750 6000		
		Total. . . . .	\$ 215,000.





The Salvation Army is practically the only organization which not affiliated itself spontaneously with the official charities, but provision was made for it in the budget. The hospitals were included, as the hospitals have cared for county patients for years without adequate remuneration. The amt. expended on charity patients last year by the hospitals totalled \$82,626.08, \$27,213.06 of which was a distinct loss. The St. Francis supports a Maternity Clinic, the Wesley a Medical and Surgical Dispensary.

#### Baby Clinics:

Clinic held twice per week, Thur. A.M. at the city hall, Tues. A.M. at the North End Community House. Local physicians attend. The misc. expenses are met by the city. In 1920, patients numbered 1,201; in 1921, 1,512.

#### Labor Conditions:

Only four cities in the 10th Federal Reserve District showed a larger number of savings accounts than Wichita in 1921. In July 1922, in only one Federal District were there fewer business failures. In August 1922, there were but 200 unemployed in the city, and most of them "floaters", according to a report of the Kansas State Free Employment Bureau. The same condition existed thruout the state. The report stated in regard to Wichita, "Supply and demand for labor about equal, although number of transits increasing. Practically all local plants working full time. Building on the increase with shortage of mechanics. Good demand for farm help". Report on the state as a whole, "the estimated number of unemployed is 5,755, of which 75% are unskilled, and over half of the total engaged in part time work. Principal industries operating part time are foundries, soap factories and brick and tile plants. Scarcity of experienced farm labor."

#### Phyllis Wheatley Colored Childrens Home:

The City Federation of Colored Women's Clubs have worked for 2 yrs. to pay off the indebtedness of this home. A board of directors has charge of its administration. It receives support from the chest, city and county, and in return takes cases from the juvenile court as well as destitute colored

The first part of the paper is devoted to a general discussion of the problem of the existence of solutions of the system of equations (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the system has solutions for arbitrary values of the parameters  $\alpha$  and  $\beta$  if and only if the conditions (2) are satisfied. The second part of the paper is devoted to a detailed study of the properties of the solutions of the system (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the solutions of the system (1) are unique and depend continuously on the parameters  $\alpha$  and  $\beta$ . The third part of the paper is devoted to a study of the asymptotic properties of the solutions of the system (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the solutions of the system (1) have the asymptotic properties (3) for arbitrary values of the parameters  $\alpha$  and  $\beta$ .

## REFERENCES

1. A. M. Ginzburg, *Usp. fiz. nauk*, **10**, No. 1, p. 1, 1946.
2. A. M. Ginzburg, *Usp. fiz. nauk*, **10**, No. 2, p. 1, 1946.
3. A. M. Ginzburg, *Usp. fiz. nauk*, **10**, No. 3, p. 1, 1946.

## APPENDIX

The first part of the appendix is devoted to a study of the asymptotic properties of the solutions of the system (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the solutions of the system (1) have the asymptotic properties (3) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . The second part of the appendix is devoted to a study of the asymptotic properties of the solutions of the system (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the solutions of the system (1) have the asymptotic properties (3) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . The third part of the appendix is devoted to a study of the asymptotic properties of the solutions of the system (1) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the solutions of the system (1) have the asymptotic properties (3) for arbitrary values of the parameters  $\alpha$  and  $\beta$ .

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3. A. M. Ginzburg, *Usp. fiz. nauk*, **10**, No. 3, p. 1, 1946.



children in general. There were 26 children being taken care of when inspected. An addition is needed.

#### Kansas Masonic Home:

Organized in 1917 to take care of 175 penniless Masons and their families, there are now 185 residing there and an addition is necessary. This will increase the capacity 50%. First cost \$300,000 and an expenditure of \$360,000 will be made for the addition. This will be paid by the Masons of Kansas.

#### Childrens Homes:

The State does not provide for the care of children under 2 yrs. in any state institution--they being placed in licensed homes, where the expenses are paid by the state, city, county or some charitable organization. Wichita has 20 of these homes and 26 applications on file. These will be investigated by the State Bd. of Health. The cleanliness of the house and women in charge determines which places will be licensed.

#### North End Community House and Day Nursery:

A concrete building started by a Unitarian Minister but taken over and used as a "flu" hospital during the war. Taken over by the "League for Social Work" during the summer of 1919. The day nursery is maintained daily for the mothers who work in the north end. There is a room for the Wichita Public Health Nursing Assoc. Baby Clinic, one for a branch of the Public Library. The Y.M.C.A. operates a boy's work dept., has a club, a choir and various classes. The Y.W.C.A. has done the same for the girls.

#### Wichita Baby Camp:

This is under the management of the "Council of Social Agencies", and is financed by Chest and Membership dues. The present building is of fireproof concrete stucco construction (the older buildings which had gradually accumulated were destroyed by fire in 1920), built entirely by public donations. It has 20 cribs and a smaller receiving and isolation





ward of 2 cribs; complete kitchen for preparing foods; and a utility room for bathing and weighing babies. A board of 20 women administer the camp. All races are admitted: the age limit is 2 yrs. Physicians services are donated.

#### Salvation Army Rescue Home:

Located at 9th and Francis Street. This institution has been in operation 2 yrs. and already has greatly outgrown it's capacity of 28 girls, who come from all over, pay if they are able and no questions asked. 174 girls have been housed, 4 have been 14, several in the early 20's, most of them 16 - 18. 126 babies have been born there, the others have gone home or were married. The girls are induced to keep their babies.

A new home (soon) is soon to be erected at Sims Park, with a capacity of 110 girls which will be derived from Kansas, Oklahoma and Missouri. It will be two stories with basement and will be modern in every respect.

#### Other Charities:

The above charitable institutions are those whose nature was not sufficiently evident from their name in the Community Chest Budget or not included. Those not discussed are like similar institutions elsewhere and their name indicates the scope of their activity.

#### City Planning:

The City Planning Commission was organized April 1921, is composed of 17 members and meets once monthly. No report has been gotten out of the work to date. They have completed a survey of the city, available June 1923, covering: General Considerations; Streets, Transit and Transportation; Public Recreation; Zoning; Civic Art; Housing; Legislation and Finance; Administration.

1. In the matter of zoning, the word of the Commissioners is almost law. The Zoning ordinances and maps will be found attached. They are not hard and fast and accommodate themselves to the city's growth. There has been many newspaper complaints in regard to the following:





a. The first house in a block may be set as far back as 40 feet from the street. All other houses in that block are governed by this. This applies only in the residential district and altho it is true different styles of house are "set off" better by being placed at different and varying distances from the street, this law is probably a good one as there are always some who wish to place their house abutting the sidewalk to the exclusion of all the other families on the street.

b. Under the regulation that no dwelling shall be erected in an "A" district on any lot with an area of 3500 ft. providing for more than one family (without regard to size) a hardship is worked on those of small or no families who might wish to share a large house jointly. This seems to be an unnecessary hardship on those falling in that class-- and they are many in this age.

c. The section which excludes lodging houses from "A" districts forbids the keeping of even one roomer by any householder in the district. A marked injustice to a single person or otherwise that wishes to acquire a room in the city most exclusive districts as well as to an owner e.g., well along in years, his own family having departed, who wishes to fill up parts of a large but vacant house. (If such a law existed in Brookline, many of us would have to make other arrangements.)

2. Extension of the City Limits: there are two areas that are nearly surrounded by the city yet outside the city limits, viz, the Packing House District in the North End, and the Steinbuchel Estate of 64 acres lying just east of Sim Park. These areas should be taken into the city, the former so that it could be cleaned up and nuisances eliminated and the other utilized for a residential district--a thing that Wichita has increasing use for.

3. Squattertown: Below Douglas Avenue, on the west side of the river lies this ancient relic, scattered along a sandy winding cowpath officially known as the "Boulevard". At the time of the chartering of Wichita the Arkansas River was thought to be navigable and the State Waterways Commis-





-ion reserved a strip along the banks as state ground. The City having no jurisdiction, the state giving it no thought, it soon became filled with shacks of all descriptions, numerous garbage and trash dumps, and piggeries galore. One year ago the state gave the land to the city. A gravel company was driven off by force. Then followed an injunction to eliminate the "squatters" but it has not been enforced.

The "squatters" in order to release themselves from that status are to pay the city \$1.00 a yr. rent-- few have complied with the demand. Some of the land is claimed by the "well to dos", which makes it's handling still more intricate and difficult. The only thing too good to burn is a \$700.00 church.

4. Parks: Last years report (Park Board) shows 500 acres in this system, scattered thruout the city. The total receipts were \$184,266.34, \$97,539.73 of which was raised from bonds and \$52,952.19 from tax levy, the rest was secured from interest, materials sold and concessions. The expenses for labor, supplies, etc. amt. to \$8,185.08. \$23,801.66 was expended at Riverside Park for the zoo, grounds, roads, walks and forestry. Oak Park was purchased for \$35,000. Sim Park improvements took \$15,481.97 more.

A \$35,000 municipal bathing pool is under construction at Riverside Park, and a smaller one for the colored races at McKinley Park. The former will accommodate 3,000 bathers daily, has a graded concrete bottom covered with sand and entrances that make a previous shower a necessity.

An inspection of Riverside Park showed that it was badly lighted, the zoo poorly lighted and ventiated, many of the animal houses in need of repair. The toilets, had concrete floors, fairly clean stools, but poor ventilation.

At present Wichita boasts of a very poor "tourist camp," both from the city end of the deal and from care taken of the camp by the tourist. A "tourist camp" is something rarely seen in the East, infrequently seen but of poor quality in the Central States but rising to it's greatest in the Western States, which of course makes a far greater bid for the





tourist trade than do other sections. The Wichita camp provided very poor toilets, the backs were open and flies, as natural, were swarming, the seats were of wood; newspapers were furnished. The camp was on low ground, poorly drained, garbage disposal inadequate and on the whole a distinct nuisance and a decidedly poor advertisement for the city.

In contrast to this a good camp has modern well kept toilets, free electric lights strung about thru the trees, free water, a number of small cabins, base boards for tents, tables, wood and stoves, adequate garbage disposal or an "army type" incinerator, a deposit or bond from each tourist that all rules and regulation will be carried out (of sufficient amt. that the rules are carried out for that reason if from no other--the deposit is returned upon leaving after they have cleaned up completely all rubbish, etc.), registration of all tourists and limited use of the camp (rent is charged for stays over a specified period). In this way the camps are kept in very good condition and a good camp is known by all, far and wide and is an asset of not small worth to the city. The Campmat Wichita doesn't come within this class.

Streets and Paving: Kansas is one of the most backward States in the Union in regard to paved roads. They seem content with the old dirt roads which under no conditions can be made useable-- after a rain they are hub deep in mud, without rain most of the road bed is scattered about the surrounding country for miles as dust.

In 1921 there were 10 miles of paving laid in Wichita, making the total 135 miles. The cost was \$450,000.23 of the blocks were under construction in August. In 1921 special taxes for paving amounted to \$ 457,758.74 -- an average cost of \$4,000 per block.

Below surface wiring has been ordered for the business district for 1924.

The streets, other than the main part of the business section, are only fairly well lighted--for this 1,175 corners are lighted. Twice that number would make a creditable showing.





Annual maintenance averages \$38,000.

Food and Drug Administration:

The Food Inspector makes a monthly inspection of all places, occupied or used for the preparation, manufacture, packing, storage, sale, or distribution of any or all food and drugs. The object of this is to see that they are properly lighted, ventilated, drained, plumbed, screened and conducted with strict regard to the influence of such conditions upon the health of operatives, employees or other persons, and the purity and wholesomeness of the food or drugs produced therein, as well as to see that all laws relative to the manufacture or preparation of foods and drugs are observed, to see that foods and drugs conform to the standards of purity and strength and not adulterated with any substance injurious to health or contrary to the regulations of the State Board and Drug Administration. It may not be amiss to state that Wichita is the home of the nationally known and advertised product "Mentholatum" -- the odor of pine pitch permeates the air for blocks in the area about the plant. To me it was a rather pleasant odor -- to some of the residents it might constitute a "nuisance".

ORIGINAL ARTICLES

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## RECOMMENDATIONS







## I WATER :

1. Municipal ownership of the Water System.
2. A new water supply. The best available supply at present seems to be at the junction of the north and the south forks of the Ninnescah River, 15 mi. southwest of the city. The water is soft--the quantity adequate.
3. The institution of a protected water shed in the Ninnescah Basin, including dams, reservoirs, etc., that may be needed.
4. Adequate reservoirs within the city.

If the above cannot be accomplished at the present, then I recommend the following:

1. Discharge of the present Plant Sup't.--replacing with a man of sufficient knowledge to handle a public utility with safety.
2. Discharge of the present Plant Engineer, replacing same with a man who doesn't have to be continually watched to see that sufficient chlorination is being secured, and one in sympathy with modern methods.
3. The institution of a modern water plant, utilizing the principles of sedimentation, coagulation, filtration, and chemical treatment.
4. In cooperation with No. 3 above, an adequate supply could be secured by taking water direct from the river; about 150 yds. distant.

## II SEWERS :

1. New storm sewers to drain the sections flooded last summer (see page 17).
2. Enlargements of catch basins in areas where standing water is undermining the pavement.
3. Elimination of stagnant pools in the West Side Drainage Ditch.
4. Prevention of, and the elimination of the present, trash dumps in the Arkansas River Basin.
5. Injunction to prevent the commercial use of the main drainage canal.
6. Adequate protection of all canal openings and catch basins.
7. Increase of the "Sewer Budget" and "Sewer Gang" so that the above could be carried out.



### III GARBAGE, REFUSE, ASHES :

1. The handling of all garbage in large, wide bottomed, steel lined trucks; which could be easily cleaned, easily dumped, and easily covered in passing thru the city.
2. In regard to the Wichita Dessicating Co.; the removal of "Political Influence" by discharge of Sanitary Officer in whose district this abomination exists; renovation of the building; adequate protection for workmen.
3. The elimination of the present licensed system and the installing of a unified system whereby control and responsibility for trash hauling is vested in one or a few persons.
4. Elimination of the 17th Street Dump--new dump to be located well outside the city.
5. Absolutely no promiscuous dumping and the cleaning up of all "illegal dumps".

### IV MILK :

1. Written notice to all filthy dairies to "clean up", if not complied with in 30 days, institute closure proceedings.
2. The establishment of "Certified Milk" in the City.

### V SANITARY NUISANCES :

1. DUST: The purchase of heavy duty flushing trucks -the work to be done at night.
2. GENERAL CLEANLINESS-WEEDS: Increase in the "weed" budget.
3. More stringent laws applying to the householder on whose property weeds are found.
4. UNNECESSARY NOISES: Law enforcement.

### VI INDUSTRIAL HYGIENE :

1. Adequate protection for workmen.





## VII HOUSING :

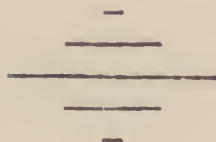
1. KEYSTONE ROOMS: Elimination of "Political Influence"--and active political interest by evry citizen interested in "Good Government".

Note: The above are a few of the more important recommendations--others will be found under "COMMENTS and CRITISMS"(listed in the Table of Contents) which also gives the reason for those listed above.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



## APPENDIX









The  
Arkansas Basin  
Below Douglas Ave.-showing  
bridge.



Looking  
West from the City Hall  
over the Arkansas-Douglas Ave.  
Bridge, and the West Side.





North East  
from  
The City Hall.



North West  
from The City Hall, over  
looking Douglas and Main inter-  
sections: Riverside Park  
in Background.







East  
on Douglas Avenue  
from  
Broadview Hotel.



The  
Pumping Plant  
on  
Ackerman Island.





The Chisholm Drainage Canal at 3rd  
and Douglas Streets. (See p.  
15 & 16).



North Lawrence Street at High Water.  
Riverside Park Region.) See p.  
16 ).



Opening of the Main South and Storm  
Sewer, near Sewer Island.







Conjoined Opening of the Chisholm  
Drainage Canal  
and  
Main Sanitary Sewer.



West Side Sewer Outlet below the  
Municipal Farm.





North Emporia Street Dump.



A view of the other end of the same  
Dump.







One  
Sanitary Garbage  
Truck, Belonging to the "Downtown Collector".



One  
of the South End Garbage Wagons.





One  
of the North End Garbage Wagons.



Home  
of one of the North End Garbage  
men: 13 in the shack.







Squattertown Dump at Harry Street.



One of the few clean Piggeries. Owned  
by the "Downtown Collector".





Dirty North End Piggery.



North End: All the Piggeries are  
of this filthy type.







Refuse  
from N. End Garbage Collectors.  
See p. 17.



The  
Cities' Greatest Nuisance: The Wichita  
Desiccating Plant.  
(See p. 20 ).





Craven's Dairy.  
Portion of the Old Section.  
(See p.24).



Draven's Dairy.  
New Barn;Old Barn;Milk House;Isolation  
Barn.







Bullock's Dairy.



One of the Unclean Dairies Closed  
at Inspection.





Filthy Dairy: Closed at Inspection.



!!!!Weeds!!!!  
As tall as Iowa Corn in August.  
(See p. 32 ).







Roosevelt School. (See p.46 ).



The Fresh Air Baby Camp.  
(See p. 58 ).





Dwelling.  
"Squatter - town".



"The Boulevard".  
Squattertown.





## CITY OF WICHITA

## HEALTH DEPARTMENT

## UNITED STATES GOVERNMENT DAIRY SCORE CARD

Owner or lessee of farm Clem Bullock  
 P. O. Address 2127 Pallisade  
 Total number of cows 21 Number milking 17 Gallons of milk produced daily 36  
 Product is sold by producer in families, hotels, restaurants, stores, to wholesale & retail dealer  
 Permit No. \_\_\_\_\_ Date of Inspection 9-21 192 2  
 Remarks: \_\_\_\_\_

EQUIPMENT	SCORE		METHODS	SCORE	
	Perfect	Allowed		Perfect	Allowed
COWS					
Health .....	6	6	Clean .....	8	6
Apparently in good health..... 1			(Free from visible dirt, 6.)		
If tested with tuberculin within a year and no tuberculosis is found, or if tested within six months and all reacting animals removed ..... 5			STABLES		
(If tested within a year and reacting animals are found and removed, 3.)			Cleanliness of stables.....	6	5.5
Food (clean and wholesome)..... 1		1	Floor .....	2	
Water (clean and fresh)..... 1		1	Walls .....	1	
STABLES.			Ceiling and ledges..... 1		
Location of stable..... 2		1.5	Mangers and partitions..... 1		
Well drained .....	1		Windows .....	1	
Free from contaminating surroundings .....	1		Stable air at milking time.....	5	4.5
Construction of stable..... 4		4	Freedom from dust..... 3		
Tight, sound floor and proper gutter .....	2		Freedom from odors..... 2		
Smooth, tight walls and ceiling .....	1		Cleanliness of bedding.....	1	1
Proper stall, tie and manger.... 1			Barnyard .....	2	1.5
Provision for light: Four sq. ft. of glass per cow..... 4		4	Clean .....	1	
(Three sq. ft., 3; 2 sq. ft., 2; 1 sq. ft., 1. Deduct for uneven distribution.)			Well drained .....	1	
Bedding .....	1	1.5	Removal of manure daily to 50 feet from stable.....	2	2
Ventilation .....	7		MILK ROOM OR MILK HOUSE.		
Provision for fresh air, controllable flue system..... 3			Cleanliness of milk room.....	3	2.5
(Windows hinged at bottom, 1.5; sliding windows, 1; other openings, 0.5)			UTENSILS AND MILKING.		
Cubic feet of space per cow 500 ft. .... 3			Care and cleanliness of utensils....	8	7
Less than 500 ft., 2; less than 400 ft., 1; less than 300 ft., 0.)			Thoroughly washed .....	2	
Provision for controlling temperature .....	1	1.5	Sterilized in steam for 15 minutes .....	3	
UTENSILS			utes .....	9	9
Construction and condition of utensils .....	1	1	(Placed over steam jet, or scalded with boiling water, 2.)		
Water for cleaning..... 1		1	Protected from contamination 3		
(Clean, convenient and abundant.)			Cleanliness of milking.....	9	9
Small-top milking pail..... 5		4	Clean, dry hands..... 3		
Milk cooler .....	1	1	Udders washed and wiped..... 6		
Clean milking suits..... 1		1.5	(Udders cleaned with moist cloth, 4; cleaned with dry cloth or brush at least 15 minutes before milking, 1.)		
MILK ROOM OR MILK HOUSE			HANDLING THE MILK		
Location: Free from contaminating surroundings .....	1	1.5	Cleanliness of attendants in milk room .....	2	1.5
Construction of milk room..... 2		1.5	Milk removed immediately from stable without pouring from pail .....	2	2
Floor, walls and ceiling..... 1			Cooled immediately after milking each cow .....	2	2
Light, ventilation, screens..... 1			Cooled below 50° F.....	2	2
Separate rooms for washing utensils and handling milk.....			(51° to 55°, 4; 56° to 60°, 2.)		
Facilities for steam..... 1		1.5	Stored below 50° F.....	5	3
(Hot water, 0.5.)			51° to 55° 2; 56° to 60°, 1.)	3	3
Total.....	40	35	Transportation below 50° F.....	2	2
			(51° to 55° 1.5; 56° to 60°, 1.)		
			(If delivered twice a day, allow perfect score for storage and transportation.)		
			Total.....	60	54

Equipment 35 + Methods 54.5 = 89.5 Final Score.

Note 1.—If any exceptionally filthy condition is found, particularly dirty utensils, the total score may be further limited.

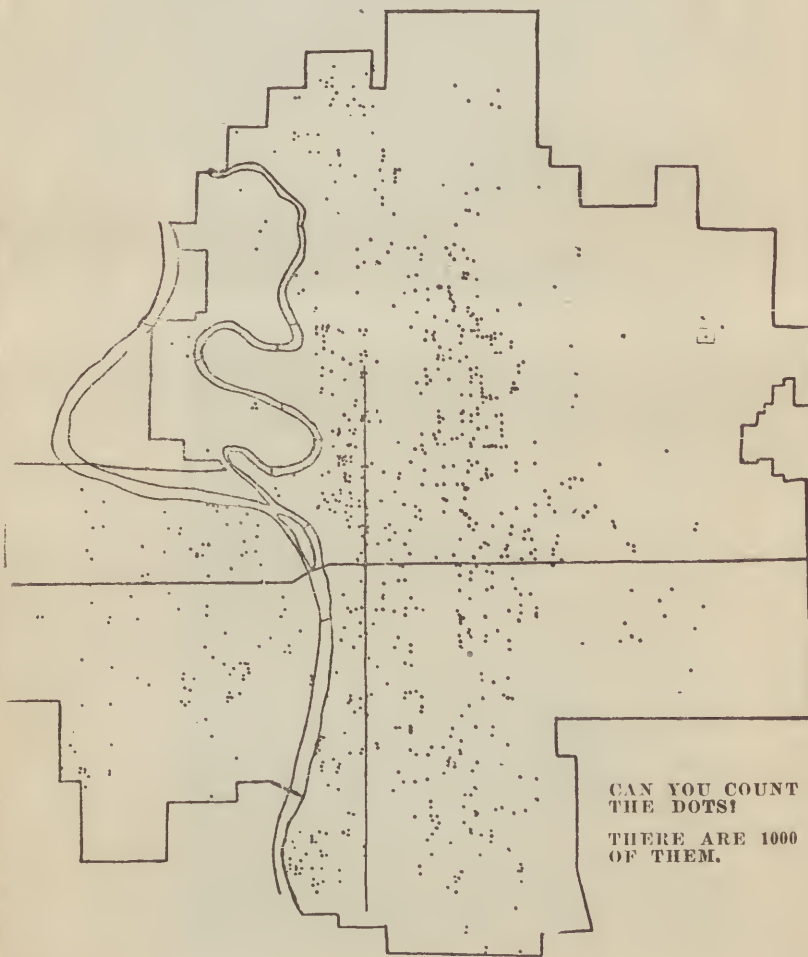
Note 2.—If the water is exposed to dangerous contamination, or there is evidence of the presence of a dangerous disease in animals or attendants, the score shall be 0.

*R. R. Hand*  
*Es. R. Ogle*

THIS MAP SHOWS THE NUMBER OF DIFFERENT  
PLACES VISITED BY THE

**WICHITA  
PUBLIC HEALTH NURSING  
ASSOCIATION**

EXCLUSIVE OF COMMUNICABLE DISEASE CASES  
FROM JULY, 1920, TO JANUARY, 1921



CAN YOU COUNT  
THE DOTS!  
THERE ARE 1000  
OF THEM.

AM I DOING MY SHARE IN THE SUPPORT  
OF THIS WORK?



1. Q. *What is the Wichita Public Health Nursing Association?*

Ans. It is a corporation organized not for profit, but for the benefit and assistance of those otherwise unable to secure skilled care in time of illness, to promote cleanliness and to teach proper care of the sick.

2. Q. *How is it governed?*

Ans. The government of this Association is vested in a Board of Directors consisting of President, Vice President, Secretary and Treasurer and 23 other members.

3. Q. *From what sources are its funds obtained?*

Ans. From active and sustaining memberships, appropriation by city commissioners, paid service rendered to corporations and individuals.

4. Q. *What has it done during 1921?*

Ans. It made 32,802 calls to 5,300 patients. Held 197 baby clinics at which 1,494 visits were made. Held 59 prenatal clinics with 96 patients. Held 39 medical clinics with 131 patients. Held 3 Mexican clinics at which 109 patients were treated. Since its beginning in 1919 there have been made 65,493 calls to 10,493 patients.

5. Q. *What is the average cost per nursing call?*

Ans. Sixty-six cents per visit.

6. Q. *How many nurses are employed?*

Ans. One supervisor and 10 staff nurses.

7. Q. *Who may be members of this Association?*

Ans. Any person, man, woman or child.

8. Q. *How many classes of membership?*

Ans. Two, active and sustaining.

9. Q. *What can I do to assist in the work of this Association?*

Ans. I may become an active member by payment of \$2.00 annual dues, a sustaining member by payment of \$10.00, and I may interest others in becoming members of the Association.

10. Q. *Am I doing my share in the support of this Association?*

Standing, left to right—Mrs. Florence Jenkins, R. N.; Miss Lucille Thomas, R. N.; Mrs. Josephine Butler, R. N. (Colored); Mrs. Inez Murray, R. N.; Mrs. Irene Kimel, R. N.; Mrs. Estelle Patrick, R. N.; Miss Anne Lee Washbon, R. N., Supervisor; Miss Emily Morgan, R. N.; Miss Kate Camien, R. N.





## OFFICERS

President - - - - - MRS. SHIRLEY JOCELYN  
Vice President - - - - - MRS. FRED STANLEY  
Secretary - - - - - MRS. HENRY WHALEN  
Treasurer - - - - - MR. E. C. ELLIOTT

## BOARD OF DIRECTORS

### *One Year*

MRS. FRED STANLEY  
MRS. HENRY WHALEN  
MRS. J. D. HOUSTON  
MRS. J. W. CHENEY  
MRS. E. S. EDGERTON  
DR. L. A. SUTTER  
MRS. J. W. CLENDENNIN  
DR. M. O. NYBERG  
MRS. R. D. WHITAKER

### *Two Years*

DR. W. S. PRIEST  
MR. WALLACE KEMP  
MR. CHAS. MAGILL  
MR. ALEX HYDE  
MR. L. W. CLONINGER  
MRS. SHIRLEY JOCELYN  
MR. E. C. ELLIOTT  
MRS. J. A. STOKELEY  
DR. PAUL CARSON

### *Three Years*

MRS. C. B. HESTER  
MRS. E. H. SHAUFLER  
DR. H. MICHENER  
MR. WALTER HENRION  
MR. W. C. COLEMAN  
MR. C. M. JACKMAN  
MR. J. H. STEWART  
MR. F. E. RICHIE  
MR. L. W. CLAPP

## STAFF

MISS ANNE LEE WASHBON, R. N.,  
*Supervisor*

MISS EMILY MORGAN, R. N.  
MISS KATE CAMIEN, R. N.  
MRS. IRENE KIMEL, R. N.  
MISS PEARL HARTSOCK, R. N.  
MRS. INEZ MURRAY, R. N.  
MRS. FLORENCE JENKINS, R. N.  
MRS. ESTELLE PATRICK, R. N.  
MISS JOSEPHINE BUTLER, R. N.  
(Colored)

### *Away on Leave*

MISS LUCILLE THOMAS, R. N.  
MISS LILLIAN SUMMERS, R. N.  
(Colored)

S N<sup>o</sup> 3184

Fill out this slip and mail to State Board of Health,  
Topeka, Kan. Or, if local ordinance requires it, mail to  
local health officer.

## Return of Notifiable Disease, Group II

Date....., 192.....

Name of \*patient..... Address.....

Disease..... Type or stage.....

Patient's age.....; sex.....; color.....; married—single—widowed—  
divorced. (Draw circle about word indicated.).....Occupation..... Is occupation or place of employment such as  
will make patient a menace to the health of others?..... If so, what meas-  
ures are or have been advised?.....Date of onset....., 192..... Complicating diseases (such as  
alcoholism, tuberculosis, etc.).....

Was diagnosis confirmed by laboratory finding? If so, which?.....

Source of infection.....

Did you give patient circular of instructions bearing above serial number?.....

Address of reporting physician.....

Signature of physician.....

\*(Unless physician is willing to vouch for conduct of patient not to spread disease, the name and  
address are to be given.)

USE OTHER SIDE FOR REMARKS.

9-1297

G N<sup>o</sup> 9643

Fill out this slip and mail to State Board of Health, Topeka,  
Kansas. Or, if local ordinance requires it, mail to local health  
officer.

## Return of Notifiable Disease, Group II

Date.....19.....

Name of \*patient..... Address.....

Disease..... Type or stage.....

Patient's age.....; sex.....; color.....; married—single—widowed—  
divorced. (Draw circle about word indicated.).....Occupation..... Is occupation or place of employment such  
as will make patient a menace to the health of others?..... If so, what measures  
are or have been advised?.....Date of onset.....19..... Complicating diseases (such  
as alcoholism, tuberculosis, etc.).....

Was diagnosis confirmed by laboratory finding? If so, which?.....

Source of infection.....

Did you give patient circular of instructions bearing above serial number?.....

Address of reporting physician.....

Signature of physician.....

\*(Unless physician is willing to vouch for conduct of patient not to spread disease, the name and address are  
to be given.)

(USE OTHER SIDE FOR REMARKS.)

7-6607



# Instructions for Preventing the Transmission of Syphilis and Chancroid

ISSUED BY THE KANSAS STATE BOARD OF HEALTH  
IN COOPERATION WITH  
THE UNITED STATES PUBLIC HEALTH SERVICE

## READ CAREFULLY AND OFTEN

1. Syphilis is a dangerous communicable disease caused by a specific germ called the *Treponema pallida*. The terms lues and pox also apply to this disease. Advertisements of so-called sex remedies frequently speak of syphilis as "blood-poison." The disease begins with a local infection or sore termed a "chancre." From this starting point it infects the blood, and therewith all parts of the body. For months, and sometimes years, after infection, the individual may communicate it by cohabitation, or occasionally by personal contact, such as a kiss; and articles moistened by his secretions—towels, drinking glasses, pipes, etc.—may sometimes convey the infection. While under proper treatment the disease is not dangerous to the individual's life in the earlier years, yet the possibility of transmitting the contagion forbids his marriage for at least three years, or longer if the physician so advises.

2. The most serious results of syphilis appear years after its acquisition, when the individual has been lulled into a false sense of security by long freedom from its manifestations and considers himself cured. It may attack any organ of the body. Among the many diseases produced are apoplexy, paralysis, insanity and locomotor ataxia; and these often appear after the man has a family dependent upon him for support.

3. The disaster to the individual wrought by syphilis is shown in the attitude of the leading insurance companies toward those infected—a purely business proposition devoid of all sentimental considerations. They refuse to insure the life of a syphilitic person for four or five years after the disease was contracted, and then only upon special terms, for their records prove that syphilis shortens life, and the death rate for those who have had syphilis is double the rate for those who have never contracted it.

4. That the syphilitic parent may transmit the disease to his offspring is common knowledge. Some of his children are destroyed by the inherited disease before birth; others are born to a brief and sickly span of life; others attain maturity, seriously handicapped by a burden of ill health, incapacity and misery produced by the inherited taint; while some apparently escape these evil effects.

5. Knowing these facts, every infected individual should also know that these dire results may be prevented or the chances of them reduced to a minimum by energetic and thorough treatment. Presuming the patient has selected an honest, competent physician, he should rigidly follow the advice and treatment given. He should waste no time on drug-store remedies or "blood purifiers" (thus falsely advertised); nor should he rely on promises of speedy cures, which do not cure but only deceive one into believing himself cured.

He should understand that an apparent cure is not always a real cure; the germs of syphilis may lurk in the blood long after the outward symptoms have disappeared. Only a competent physician can give intelligent and reliable assurance that the disease is really eradicated. Until such assurance is secured, *the patient must not think of marriage.*

## PERSONAL ADVICE TO PATIENT

1. Do not forget your disease may be communicated to others by means other than sexual intercourse.

2. It may be transmitted by any of the secretions of the body, but more especially by blood or blood serum oozing from raw mucous surfaces, such as cracked or sore lips, mucous patches in the mouth and throat, discharges from syphilitic ulcers and sores.

3. Never permit the slightest opportunity for other persons to come in contact with any of these secretions.

4. To avoid this, follow these rules:

(a) Until the acutely infectious stage is passed and permission is given by the physician you should have individual drinking cups and eating utensils. These should be sterilized by boiling after each use. Never use public drinking cups.

(b) Tooth brushes and containers of pastes, powders or mouth washes used in caring for the teeth should be kept in separate containers or compartments where no opportunity for contact with others is possible. Brush teeth night and morning (or better, after each meal) and keep mouth clean.

If you have bad teeth have them attended to by a dentist. Be fair to him and his next patient by telling him you have syphilis, so he may take precautions and not infect others.

(c) Use no razor or other articles used in shaving except your own, and permit no other person to use your shaving outfit. Shaving in a public barber shop is prohibited for one year after beginning of infection.

(d) Basins, lavatories and bathtubs used should be washed out thoroughly with soap and hot water after each use by you. Separate basins are to be used wherever possible. The use of public bathtubs is prohibited.

(e) You should use individual towels.

(f) Handkerchiefs and clothing, especially underclothing, which may be soiled by secretions should be laundered separately, or if impracticable, they must be immersed in boiling water or an approved antiseptic solution, as advised by the physician, before being added to other laundry.

(g) All dressings of sores or ulcers must be burned or otherwise destroyed. Never leave them where they are accessible to flies.

(h) Never kiss others or permit them to kiss you.

(i) Sleep alone and practice continence. Your physician will tell you good habits improve your physical tone and hasten recovery.

(j) Follow your physician's advice, and do not cease treatment until by every known laboratory method he has satisfied himself of your recovery, and assures you there is no longer danger of your transmitting the disease.

(k) Do not be led astray by promises of hasty or permanent cure by falsely advertised remedies. Cheap cures make miserable lives and expensive funerals. You gain nothing but bitter experience by deceiving yourself, and you risk the injury of those nearest and dearest to you. Play fair with yourself and with others.

5. Consult your doctor at least once a month for two years.

## CHANCROID (Soft Chancre)

Chancroid or soft chancre is a filthy ulcer on or near the sex organs of a person who is careless and dirty. It is caught from another person of unclean habits. Usually beginning as a small pimple or pustule it soon changes to an open sore which may extend rapidly and destroy much tissue if not promptly and properly treated by a skilled physician. Sometimes the infection extends to the groin and causes buboes or "blue balls," which break down and form sores very hard to heal.

The most important point about soft chancre is that it looks so much like hard chancre (the first sore of syphilis) that it is extremely difficult to tell them apart. Thus a soft chancre may hide a syphilitic infection. This fact emphasizes the importance of expert medical attention.

## PERSONAL ADVICE TO PATIENT

1. Remember that while chancroid is usually transmitted by sexual intercourse, it may be conveyed also by other means.

2. The infection is carried from one person to another in the pus or matter from the ulcer.

3. To protect others from infection, follow carefully these rules:

(a) Follow the precautions advised for syphilis till that disease can be excluded by repeated examinations.

(b) Burn all soiled dressings.

(c) Keep dressings away from flies till they can be burned.

(d) Do not soil the hands or clothing when handling dressings.

(e) Wash the hands carefully with soap and water after each urination or change of dressings.

(f) Cleanse carefully each basin, lavatory or bathtub after using. Do not use a public bath.

(g) Do not soil a toilet seat.

(h) Have no sexual relations until you are entirely cured.

(i) Rely upon your doctor and not yourself to know when you are cured.

S N<sup>o</sup> 3184

Circular of instructions to be given to patient.

Fill out this slip and mail to State Board of Health, Topeka, Kan. Or, if local ordinance requires it, mail to local health officer.

S N<sup>o</sup> 3184

Return of Notifiable Disease, Group II

Date....., 192.....

Name of \*patient..... Address.....

Disease..... Type or stage.....

Patient's age.....; sex.....; color.....; married—single—widowed—divorced. (Draw circle about word indicated.).....

Occupation..... Is occupation or place of employment such as will make patient a menace to the health of others?..... If so, what measures are or have been advised?.....

Date of onset....., 192..... Complicating diseases (such as alcoholism, tuberculosis, etc.).....

Was diagnosis confirmed by laboratory finding? If so, which?.....

Source of infection.....

Did you give patient circular of instructions bearing above serial number?.....

Address of reporting physician.....

Signature of physician.....

\*(Unless physician is willing to vouch for conduct of patient not to spread disease, the name and address are to be given.)

USE OTHER SIDE FOR REMARKS.

9-1297



# Instructions for Preventing the Transmission of Gonorrhœa

ISSUED BY THE KANSAS STATE BOARD OF HEALTH  
IN COOPERATION WITH  
THE UNITED STATES PUBLIC HEALTH SERVICE

## READ CAREFULLY AND OFTEN

1. Gonorrhœa (or clap) is a dangerous communicable disease caused by a germ called the gonococcus. It produces an inflammation of the urinary channel, and may extend into the deeper tissues or into the joints or other parts of the body. It frequently results in a chronic discharge called "gleet."

The prevalent notion among the uninformed that gonorrhœa is a mere annoyance, "no worse than a cold," is based entirely upon lamentable ignorance, and is absolutely false.

2. Gonorrhœa, while usually cured without apparent loss of health, has always serious possibilities. It is estimated that it ultimately kills at least one in a hundred; it impairs the sexual power and fertility of a much larger number, rendering these more or less incapable of procreation; it often produces urethral stricture, which later may cause loss of health and even of life; and in many cases it causes chronic pain and distress in the sexual organs, with severe mental depression. The loss of health, time and money entailed by these after-results and their treatment may far exceed that occasioned by the original disease.

3. The persistence of this disease in the deeper parts, long after it is outwardly cured, leads to the unsuspected communication of the disease to women with whom the individual may cohabit. Among these women may be his bride, who thereupon enters upon a period of ill health that may compel the mutilation of the sexual organs by a surgical operation or cause the loss of her life. Much of the surgery of the sexual organs of women has been rendered necessary by gonorrhœa contracted from the husband, who thought he was completely recovered from the disease. Should she, while infected, give birth to a child, the baby's eyes may be attacked by the infection, sometimes with loss of sight. Twenty-five percent of all blindness is due to this cause.

4. Knowing these facts, the path of duty is clear to any patient, and he should realize that the best use he can make of his time and money is in having the disease energetically and thoroughly treated. Presuming that he has selected an honest, competent physician, he should rigidly follow the advice and treatment given. He should waste no time in trying some drug-store remedy, or some medicine recommended by a friend. He would not have his broken leg treated that way, yet this disease is far more serious than a broken bone, since it may destroy health, or even life itself.

Moreover, he should understand that an apparent cure is not always a real cure; the germs of gonorrhœa may lurk in the deeper parts long after the outward symptoms have disappeared. Only a competent physician can give intelligent and reliable assurance that the disease is really eradicated. Until such assurance is received, *the patient must not think of marriage.*

## PERSONAL ADVICE TO PATIENT

1. Never forget your disease is infectious, or "catching," by other means than by sexual intercourse.

2. It may be transmitted to any mucous surface through contact with the discharges from the urinary canal.

3. Never permit the slightest opportunity for other persons to come in contact with these discharges, or with anything contaminated by them.

4. To avoid this, follow these rules:

(a) Wash the hands thoroughly with soap and hot water after every urination or other handling of the diseased organs. *Remember*, by one act of carelessness you may carry the infection on your fingers to your own eyes and expose yourself to the risk of becoming blind.

(b) After washing the hands, do not merely rinse the basin or lavatory; wash it thoroughly with soap and hot water, and preferably follow by an antiseptic solution of known strength, as advised by your physician.

(c) The same care should be used in washing out bathtubs. The use of public bathtubs is prohibited. Never use any bathtub immediately preceding another person.

(d) Always have your individual towel. The use of the common towel is a prolific cause of gonorrhœal infection of the eyes. Don't expose others to the risk of blindness.

(e) Protect the clothing and underclothing against soiling by use of proper dressings. Soiled clothing should be laundered separately; or, if impracticable, soiled portions should be immersed in boiling water or an approved antiseptic solution before being added to other laundry.

(f) All dressings must be burned or otherwise destroyed. Never leave them where they are accessible to flies.

(g) Exercise care to prevent soiling of toilet seats by discharges.

(h) Sleep alone. Above all, have no sexual intercourse until you *know* you are well. You will not wish to be charged with causing the loss of health, or possibly the death, of any person. Besides, your physician will tell you, it retards your own recovery.

(i) Follow your physician's advice, and do not cease treatment until by every known laboratory means he has satisfied himself of your recovery and assures you there is no longer danger of your transmitting the disease.

(j) Do not be led astray by promises of hasty cure by falsely advertised drug-store remedies. Cheap "cures" make miserable lives and often expensive funerals. You gain nothing but bitter experience by deceiving yourself, and you risk the injury of those nearest and dearest to you. Play fair with yourself and with others.

5. Consult your doctor at least once a week for the first three months.

G N<sup>o</sup> 9643

Circular of instructions to be given to patient.

G N<sup>o</sup> 9643

Fill out this slip and mail to State Board of Health, Topeka, Kansas. Or, if local ordinance requires it, mail to local health officer.

### Return of Notifiable Disease, Group II

Date.....19.....

Name of \*patient..... Address.....

Disease..... Type or stage.....

Patient's age.....; sex.....; color.....; married—single—widowed—divorced. (Draw circle about word indicated.).....

Occupation..... Is occupation or place of employment such as will make patient a menace to the health of others?..... If so, what measures are or have been advised?.....

Date of onset.....19..... Complicating diseases (such as alcoholism, tuberculosis, etc.).....

Was diagnosis confirmed by laboratory finding? If so, which?.....

Source of infection.....

Did you give patient circular of instructions bearing above serial number?.....

Address of reporting physician.....

Signature of physician.....

\*(Unless physician is willing to vouch for conduct of patient not to spread disease, the name and address are to be given.) (USE OTHER SIDE FOR REMARKS.) 7-6607



### RETURN OF NOTIFIABLE DISEASE.

Date of Onset.....192.....  
Disease or suspected disease.....  
Patient's name..... Age..... Sex.....  
Patient's address..... Street and No.....  
Color..... Nativity..... Occupation.....  
School attended or place of employment.....  
Number in household: Adults..... Children..... Probable source of infection  
or origin of disease.....  
If disease is smallpox, type....., number of times successfully  
vaccinated (in typhoid fever also), and approximate dates.....  
If typhoid fever, scarlet fever, diphtheria or septic sore throat, was patient, or is any  
member of the household, engaged in the production or handling of milk?.....  
In rural cases specify: Case occurred at premises of.....  
Residing at number of miles North..... East..... of.....  
South..... West.....  
Address of reporting physician.....  
Signature of Physician.....

NOTE.—THIS CARD TO BE USED FOR REPORTING OF DISEASE ONLY.

8-6174

### TUBERCULOSIS.

### KANSAS STATE BOARD OF HEALTH.

County..... City..... Date.....192.....  
*To the Local Health Officer:* I have to report the following case of tuberculosis:  
Name..... Age..... Color..... Sex.....  
Address..... Married—Single—Widowed—Divorced  
Nationality..... Birthplace.....  
Location of lesions { Lungs—Larynx—Lymph Glands—Peritoneum—Intestines—Bones—Skin—Genito-urinary Tract—  
Nervous System—General. (Scratch out all except proper answer.)  
How long tuberculous?..... Has tubercle bacilli been demonstrated?.....  
If pulmonary, coughing how long?..... Expectorating how long?.....  
Stage of disease.....  
Occupation.....  
Address..... (Signed).....  
Attending Physician.

This card to be sent to the State Board of Health after entry by the Local Health Officer.

8-5974

COLEMAN LAMP CO.  
WICHITA, KAN.

APPLICATION FOR EMPLOYMENT

FORM NO. F-12M-2-1-21  
REVISED 1-20-45

YEARS

NAME		DATE OF APPLICATION	
WICHITA STREET ADDRESS		PHONE NO.	
HOW LONG HAVE YOU LIVED IN WICHITA?		HOME ADDRESS (IF OTHER THAN ABOVE)	
DO YOU DESIRE TEMPORARY OR PERMANENT EMPLOYMENT?		IF TEMPORARY, HOW LONG WOULD YOU EXPECT TO REMAIN?	
STATE WHICH		IF TEMPORARY, HOW LONG WOULD YOU EXPECT TO REMAIN?	
CHECK WHICH		HOW MANY DEPENDENTS?	
MARRIED, SINGLE, WIDOWED OR DIVORCED		BOYS	
YOUR AGE		HEIGHT	
FT.		IN.	
VRS.		LBS.	
ARE YOU PHYSICALLY SOUND?		IF NOT DESCRIBE BRIEFLY ANY DEFECT TO EYESIGHT, HEARING, LIMBS OR OTHERWISE.	
IS YOUR GENERAL HEALTH GOOD?		IF NOT, STATE NATURE OF ILL HEALTH.	
IF KEEPING HOUSE, CHECK WHICH		IF MEMBER OF ANY CHURCH, GIVE DENOMINATION	
OWN HOME		BUYING HOME	
RENT HOME		RENT APARTMENT OR UNFURNISHED ROOMS	
RENT APARTMENT OR UNFURNISHED ROOMS		RENT FURNISHED APARTMENT OR LIGHT HOUSEKEEPING ROOMS	
GIVE HIGHEST GRADE FINISHED IN GRADE SCHOOL OR HIGH SCHOOL		IF MEMBER OF ANY CHURCH, GIVE DENOMINATION	
WHAT COLLEGE OR OTHER SPECIAL SCHOOL TRAINING HAVE YOU HAD?			
HAVE YOU WORKED FOR THIS COMPANY BEFORE?		IF SO, HOW LONG?	
IN WHAT DEPARTMENT?		WHEN DID YOU QUIT?	
WHY?			
NAME		LAST THREE EMPLOYERS	
ADDRESS		OCCUPATION	
WAGES		HOW LONG EMPLOYED	
REASON FOR LEAVING			
GIVE AS REFERENCES, THE NAMES OF TWO RESPONSIBLE PERSONS NOT FORMER EMPLOYERS NAMED ABOVE. EMPLOYEES OF THIS COMPANY OR OTHER WICHITA REFERENCES PREFERRED.			
NAME		ADDRESS	
BUSINESS		PHONE NO.	
WHAT IS YOUR PRINCIPAL OCCUPATION OR TRADE?		NO. YEARS EXPERIENCE IN THIS OCCUPATION	
EXPERT		GOOD	
MEDIUM		FAIR	
BEGINNER			
EFFICIENCY IN THIS OCCUPATION		CHECK WHICH	
PLACE A NUMBER SHOWING THE APPROXIMATE NUMBER OF YEARS YOU HAVE WORKED AT THAT OCCUPATION, OPPOSITE EACH OF THE TRADES OR OCCUPATIONS NAMED IN THE COLUMN AT THE RIGHT OF THIS BLANK, IN WHICH YOU HAVE HAD EXPERIENCE. IF EMPLOYED ONLY AS HELPER IN ANY OF THESE TRADES, PLACE A LETTER "H" AFTER THE NUMBER OF YEARS.			
HOW LONG DO YOU WISH THIS APPLICATION KEPT ON FILE?			
IF NO EMPLOYMENT IS IMMEDIATELY AVAILABLE?			
UNLESS REQUESTED, APPLICATIONS WILL NOT BE HELD MORE THAN 30 DAYS.			
INTERVIEWED BY		RENEWALS OF APPLICATION	
HIRED TO BEGIN WORK IN		APPLICANT EXAMINED AND APPROVED	
DEPARTMENT		EMPLOYEE BEGAN WORK	
AS		RATE PER HR.	
AT		CLOCK NO.	
SUBJECT TO SATISFACTORY PHYSICAL EXAMINATION		NAME ENTERED	
DATE		ON HIRED LIST	
EMPLOYMENT DEPT.		ON INS. LIST	
COMPANY PHYSICIAN		ON DIRECT-ORV RECORD	
OTHER OCCUPATIONS			

**FIRST ANNUAL REPORT**

*of the*

**WICHITA  
PUBLIC HEALTH  
NURSING  
ASSOCIATION  
1919**





First Annual Report  
of the  
**Wichita Public Health Nursing Association**

Incorporated December 1919

.....

Offices 4th Floor City Hall Building

Telephone Market 882

January 14th to December 31st, 1919

## WHAT THE WICHITA PUBLIC HEALTH NURSING ASSOCIATION IS.

A field hospital, furnishing skilled nursing care to the sick in their own homes. After the first visit, no nursing care is given in any home unless a physician is in attendance who has given orders for the care of his patient.

## WHAT THE ASSOCIATION DID IN 1919.

9,606 visits were made in the homes of 1,281 patients. This is an average of 7 home visits to each patient. We make these visits free to the sick poor, but charge a fee to all patients who can pay for our service. The Metropolitan Life Insurance Company and two large corporations in Wichita pay us for visiting their industrial policy holders and sick employees.

## HOW TO USE THE ASSOCIATION.

When a visiting nurse is wanted, call Market 882 between the hours of 8:30 and 5:00 P. M. Give the patient's name and address. No patient is ever refused because of race, color, or creed.

## HOW FUNDS ARE SECURED.

By a tax levy on the real, personal and mixed property of the city in which the Association is located. By Memberships and Contributions. By net receipts from special entertainments such as the Municipal Concerts Series, Society Circus, Federation of Women's Clubs. No paid solicitors are employed. All service of this nature is gratis.

## HOW THE FUNDS ARE USED.

Salaries of Supervisor, Nurses and Clerk. General expenses as Drugs and Nursing Equipment, Printing and Stationery, and miscellaneous minor items. Officers and Directors of the Association receive no pay for their services.

## OFFICERS FOR THE FIRST YEAR January 14th, 1919 to December 31st, 1919

Mr. L. W. Clapp, President

Mrs. J. A. Stokely, Vice-President

Mrs. Shirley Jocelyn, Secretary

Mr. R. D. W. Clapp, Treasurer

## BOARD OF DIRECTORS

Dr. H. Michener.....	410 Schweiter Bldg.
L. S. Cloninger.....	610 4th National Bank
L. R. Ash .....	City Hall
Walter Henrion.....	320 Roosevelt
Dr. W. F. Willhoite.....	503 Schweiter Bldg.
W. C. Coleman.....	Coleman Lamp Co.
Alex Hyde.....	134 S. Rutan
Mrs. A. S. Parks.....	334 N. Belmont
Chas. H. Hoover.....	1722 N. Market
Mrs. E. E. Walker.....	251 S. Clifton
Mrs. J. A. Stokely.....	1248 N. Emporia
Mrs. A. M. Cowan.....	3329 Country Club Pl.
Mrs. B. E. Rowlee.....	1040 N. Lawrence
Mrs. Arnold Hughes.....	936 S. Wichita
Henry Whalen.....	409-13 Bitting Bldg.
Mrs. Shirley Jocelyn.....	921 Wiley
C. M. Jackman.....	1501 Fairmount
W. M. G. Howse.....	340 N. Hillside
Chas. Magill.....	1208 N. Emporia
L. W. Clapp.....	City Hall
Wallace Kemp.....	1629 University
J. H. Stewart.....	1047 N. Lawrence
Dr. W. S. Priest.....	218 E. Third
Henry Wallenstein.....	832 N. Topeka
Rev. Guy Brown.....	1064 N. Lawrence
Mrs. L. G. Smith.....	642 Laura
Dr. W. T. Doherty.....	City Hall

## PRESIDENT'S REPORT

Good health is the only capital possessed by wage earners and thousands of other people.

The comfort and happiness of millions of women and children, and the earning capacity of heads of families and wages of others employed, depends solely on maintaining the good health of all the members.

There is no more important service a community can render itself than intelligent organization and maintenance of every form of effective work which proves beneficial in prevention of disease, care of those sick or disabled and early restoration to health and earning capacity.

The administration of Municipal Government in the City of Wichita is thoroughly convinced of these truths and unreservedly committed to a sincere course of health conservation and health improvement activity.

Supplementing the City's Health Board work, the greatest factor and assistance that has been given to health work is the Wichita Public Health Nursing Association.

This is not a department of the City work, though by authority of the Legislature, \$5000.00 is permitted to be appropriated to assist the financing of the work for the year 1920.

The Association is an incorporated body, organized for benevolent purposes without capital, stockholders or profit to any person. Its only purpose is the welfare of the whole people of the City and for community benefit.

It is most gratifying to publicly announce the success beyond expectation of the first year's work of this Association.

Literally, thousands of homes needing technical help and friendly encouragement, have felt the touch of the trained nurse's hand, received the advice and information needed and longed for by anxious mothers or worried fathers, who were at sea as to where to go or to whom to appeal.

Because of this service, wage earners have been kept at their work, homes have been inspected and made safe, families taught how to live better and how to avoid disease or to recover more speedily from its ill effects by timely action in anticipation of crises.

The best proof of these statements is the experience of Industrial Plants, Life Insurance Companies and employers of men and women. They have found that as a business proposition, attention to the home conditions and health of their employees and the employee's family, is the best money saver open to the intelligent management of business.

In Wichita, the Coleman Lamp Company and Mr. Coleman, its President, the Metropolitan Life Insurance Company and Mr. Cloninger, its City Manager, the Kansas Gas and Electric Company, and other business institutions have called to their use the service of the Public Health Nursing Association with the greatest satisfaction. They are employing Association nurses for full or part time as their demands require. Mr. Coleman stated at a recent Director's meeting that the practice of furnishing visiting nurses to the homes, was an

action of the Company that had been most appreciated by the employees and had met with more favor than anything the Company had undertaken for the welfare and advantage of their men.

The flouring mills and other industries it is expected will adopt the service this year.

The gratitude of the people of Wichita is due to the officers of the Association, the ever sacrificing and serving corps of nurses trained in the best hospitals and field nursing; to the clubs and institutions that have given unmeasured assistance, and the Board of Commissioners of the City for encouragement and support.

Among the helpful factors are the Federation of Women's Clubs, The Child Welfare Committee of the League of Women Voters, The State and City Boards of Health, The State Tuberculosis Association, The Associated Charities, The Home Service of the Red Cross, The Babies Summer Camp, and many individuals without whose aid, success could not have been at all possible.

The work for 1920 is planned on larger lines and the good done will be multiplied several times with larger funds available and the advantage of a year's experience.

The Association is peculiarly fortunate in the acceptance by Mrs. Fred B. Stanley of the Presidency for the ensuing year. Mrs. Stanley's demonstrated executive ability and success in other large undertakings in war emergency work insures a winning year for the Wichita Public Health Nursing Association.

L. W. CLAPP,  
*President.*



## RECEIPTS AND DISBURSEMENTS

Receipts March 1, 1919 to December 31, 1919.

Memberships and Contributions.....	\$2,351.36
Donation (Wichita Chapter A. R. C.).....	500.00
Federation Dance .....	319.05
Red Cross Seal Sale (Miss Fick 1917).....	262.74
Kansas State Tuberculosis Association.....	1,752.26
City of Wichita.....	800.00
Uniform Coat Sold .....	29.50
Society Circus .....	851.76
Home Service Red Cross (for Dressings).....	16.00
Metropolitan Life Insurance Co. Fees.....	545.50
Other Fees .....	179.05
Total Receipts .....	\$7,607.22

## DISBURSEMENTS

Nurses' Salaries .....	\$5,414.14
Clerk's Salary .....	313.50
Petty Expense (itemized on separate sheet).....	90.00
Nurse's Uniform Coats.....	195.50
Traveling Expenses (Supervisor) .....	139.76
Measuring Boards .....	10.00
Scales .....	44.25
Wheat Show Booth.....	9.90
Cut for Paper .....	2.78
Carpenter .....	2.25
Visiting Nurse Bags.....	43.00
Typewriter .....	61.00
Telephone .....	20.66
Printing .....	247.95
Drugs and Supplies .....	212.63
Drayage .....	1.75
Letters for 1919 Red Cross Seal Sale.....	540.00
Membership checks redeemed.....	12.00
Total Disbursements .....	\$7,361.07
Balance in Bank Dec. 31, 1919.....	246.15
	\$7,607.22

## SUPERVISOR'S REPORT

The first year's activities of the Association has developed several well defined departments in Public Health Work.

The Wichita Public Health Nursing Association was formed January 14, 1919, with Mr. L. W. Clapp, President, Mrs. J. A. Stokely, Vice President, Mrs. Shirley Jocelyn, Secretary, and Mr. R. D. W. Clapp, Treasurer. Mrs. Zula L. Powell, recently with the United States Public Health Service, was employed as Supervisor of Nurses. The 4th of March, the Metropolitan Life Ins. Co. asked the Association to provide nursing service for their sick policy holders. This work was begun immediately. A charge of 50 cents per call being made.

A few weeks later the City engaged a welfare nurse in charge of communicable disease work under the supervision of the Association. The United States Government asked the State Tuberculosis Association to aid in locating and caring for the returned soldiers suffering from tuberculosis and also to investigate any cases of tuberculosis developing as after effects of the epidemic of influenza. This necessitated the addition of a third nurse to the staff.

Following the suggestion of the Children's Bureau of the United States Department of Labor, plans were made for a Baby Welfare conference and campaign. To help finance this project the Federation of Women's Clubs gave a dance at the Winter Garden, with the proceeds of which a Baby Welfare Nurse was employed. Baby Week was held June 2 to 9. Of the 485 babies examined, about 60% were found to be suffering from mal-nutrition and other physical defects.

Because of the findings of the conference that so many infants needed special care, baby clinics were opened in various parts of the City, six in school buildings and one in the City Hall. The latter was really a continuation of the clinic conducted for some time by the Child Welfare Department of the Parent-Teacher Association. The clinics in the schools were open only during the months of July and August. The City Hall clinic is an all year clinic and is well attended even during the cold weather.

During the time the out-door Baby Camp was conducted by the Baby Camp Association in Riverside Park, our sick babies were sent to the camp where they could receive constant attention. The Association was able early in the summer to arrange with the League of Women Voters to furnish milk and ice thru their milk and ice fund, to any families who could not provide milk for the baby. The Association has been fortunate to have these other organizations interested in the babies.

During July the Municipal Venereal Clinic was established and the Association was asked to provide a nurse for attendance during the clinic hours. A very short experience developed the necessity for a full time nursing service to carry on the work successfully. Such an arrangement it is expected can be made in 1920.

In conjunction with their course in Sociology, and as a part of their nursing training, the Senior Nurses of the Wichita Hospital are participating in field work under the Association's supervision. The first nurse began work in September, and owing to the large number in the class, each one has had only four weeks' experience.

The Directors of the Wichita Fair and Exposition Company kindly



furnished a booth in the buildings for First Aid Service during the Exposition. They must have realized from their former experience the need of this service, for during ten days, we administered 112 first aid treatments in addition to registering one hundred mothers for government literature.

On October 15, the industrial branch of the Association work was started. The nurse began with the Coleman Lamp Company, giving half time service. This work has been developed rapidly and after January 1, full time service will be given. The Kansas Gas & Electric Company also provides nursing service for its employees and their families.

In October the City was seriously threatened with an epidemic of Diphtheria. The Association provided the Board of Education with two nurses for a few days until they could secure additional nurses for work in the schools. During the epidemic, 1540 cultures were taken by Association nurses.

In December, the Tuberculosis Seal Sale was conducted by the Association. Mrs. Finlay Ross, Sr., served as General Chairman. 45% of the sales money remains in Wichita, adding to the Association's funds, \$1,695.00. Great credit is due to the booth workers, the schools, their principals and teachers for splendid co-operation.

The City provides the Association with office room, the Southwestern Bell Telephone Company provides free telephone service and the Street Car Company provides car tickets as needed for nurses' transportation.

The City has appropriated \$5,000.00 toward the work for the coming year. The Federation of Clubs is making plans for the renewal of the membership for 1920. The Association will receive the profits from the Municipal Concerts this year. With this financial assistance, assuring proof is given that Wichita is interested in the work of the nurses.

The duties of the Association have been varied. The officers and interested members have assisted in providing funds to carry on the work. The nurses have given bedside care to many patients, conducted clinics, inspected boarding homes for children and carried on general educational work along health lines, both in our home contact and the distributing of literature.

The Association has striven to conduct the nursing work in a manner which would reflect credit and win the confidence of the community. Much that has been accomplished has been due to the splendid corps of nurses which has served nobly. It is fortunate that the nurses employed had special public health training or experience, and the social viewpoint and it has merely meant an adjustment to meet the particular needs of the local community.

MRS. ZULA L. POWELL,  
*Supervisor.*

## SUMMARY OF TUBERCULOSIS WORK

Feb. 13, 1919 to Dec. 31, 1919.

Full time nurse added to staff March 29, 1919.	
Cases receiving care.....	131
Suspect Tuberculosis .....	34
Tuberculosis .....	96
Gassed .....	1
Total .....	131
Number of calls made.....	1319
Disposal of cases—	
Arrested .....	1
Died .....	16
Moved .....	18
Sanitorium .....	13
Transferred to Infant Welfare.....	1
County Tuberculosis Nurse.....	1
Recovered .....	4
Carried to January, 1920.....	77

During June, 81 reported cases of Tuberculosis investigated.

During July, 97 reported cases of Tuberculosis investigated.

Only 20 of these cases carried on records. Many had died, many others moved away and a few, possibly 6 cases in all, were considered by their physicians as arrested cases.

## SUMMARY OF INFANT WELFARE WORK

Feb. 13, 1919 to Dec. 31, 1919.

Full time nurse on duty June, 1919.

Cases receiving care.....	145
New cases .....	113
Transferred from Visiting Nurse.....	31
Transferred from Suspect Tuberculosis.....	1
Total .....	145
Number calls made.....	1442
Disposal of cases—	
Died .....	9
Moved .....	27
Baby camp .....	2
Recovered .....	4
Refuses instruction .....	1
Carried .....	102
Number Baby Clinics.....	92
Babies in clinics.....	115
Revisits to clinics.....	219
Babies sent to Baby Camp.....	13
Baby Conference held June 2nd to 9th, Babies examined.....	485
Some babies were sent to Baby Camp but still carried on our books owing to short time they remained in the camp.	

## SUMMARY OF COMMUNICABLE DISEASE WORK

April 21, 1919 to December 31, 1919.

Cases receiving care .....	543
Impetigo .....	2
Diphtheria .....	101
Diphtheria Suspect .....	24
Diphtheria Carrier .....	151
Scarlet Fever .....	27
Small-pox .....	85
Chicken-pox .....	33
Mumps .....	20
Whooping Cough .....	39
Typhoid Fever .....	35
Scabies .....	2
Measles .....	2
Observation .....	2
Influenza .....	4
Venereal .....	12
Total .....	543
Number of calls made.....	2425
Number of cultures taken.....	1540
Assisted in venereal clinics.....	60
Insanitary conditions referred to Board of Health.....	33
Communicable diseases referred to the Board of Health.....	10

## Disposal of cases—

Recovered .....	480
Died .....	7
Other care .....	2
Moved—Cannot locate.....	8
Hospital .....	7
Lansing .....	7
Children's Home .....	1
Carried to January 1920.....	31

## SUMMARY OF VISITING NURSE WORK

Feb. 13, 1919 to Dec. 31, 1919.

First Field Nurse on Duty March 17th.

Cases receiving care.....	464
Pneumonia .....	28
Colds .....	34
Influenza .....	52
Infected Eye .....	5
Enlarged Spleen .....	2
Pre-natal .....	57
Cataract .....	1
Gall Stones .....	2
Child Birth .....	35
Bronchitis .....	7
Mumps .....	1
Fractured Tibia .....	4
Cystitis .....	3
Varicose Ulcer .....	3
Lumbago .....	4

Abortion .....	10
Bilious attack.....	1
Rheumatism .....	12
New born .....	53
Empyemia .....	1
Purpura Haemorrhagica .....	1
Uterine Hemorrhage .....	1
Neurasthenia .....	5
Undiagnosed .....	14
Nephritis .....	5
Marasmus .....	1
Dislocated Arm.....	1
Otitis Media .....	1
Constipation .....	1
Boil .....	1
Indigestion .....	6
Carcinoma of Uterus .....	2
Meningitis .....	1
Salpingitis .....	4
Fractured Femur .....	2
Dysmenorrhea .....	3
Neuritis .....	1
Osteomyelitis .....	1
Sprained Hip .....	1
Tonsilectomy .....	3
Infected Foot.....	2
Intestinal irritation.....	4
Pyolitis and Enlarged Tonsils.....	1
Infected Toe .....	1
Feeble minded .....	1
Hematoma (accident) .....	1
Prolapsed Bladder .....	1
Miscarriage .....	2
Insanity .....	1
Gassed .....	1
Burn .....	2
Post-operative .....	4
Gastritis .....	4
Pyolitis .....	1
Infected Gall Bladder.....	1
Inguinal Hernia .....	2
Paralysis .....	3
Prolapsed Uterus .....	1
Shingles .....	1
Tonsilitis .....	10
Bilious Fever .....	3
Heart Lesion .....	1
Acute Nephritis .....	1
Varicose Veins .....	1
Orthopedic .....	1
Blindness .....	1
Varicocele .....	1
Dysentery .....	2
Anemia .....	1
Arterio Sclerosis .....	1
Enteritis .....	1
Peritonitis .....	1

Infected Leg .....	1
Carbuncle .....	1
Infected mosquito bites.....	1
Sprained Back .....	2
Hysteria .....	1
Carcinoma of Breast.....	1
Malaria .....	1
Injury to Eye.....	1
Abrasion Arm and Head.....	1
Accident .....	1
Infected Finger .....	2
Cholera Infantum .....	1
Overitis .....	5
Gonorrhea .....	1
Inguinal hernia .....	1
Oophro-cystectomy .....	1
Bronchial-Pneumonia .....	1
Headache .....	1
Fractured Ribs .....	1
Appendicitis .....	1
Hemorrhoids .....	1
Typhoid fever .....	1
Laryngitis .....	1
Kidney complications.....	1
Dislocated Shoulder .....	1
Appendectomy.....	3
Total No. calls.....	4390

## Disposal of cases—

Recovered .....	279
Died .....	22
Improved .....	12
Unimproved .....	3
Hospital .....	24
Sanitorium .....	1
Other care.....	10
Moved .....	9
Transferred to infant welfare.....	28
Transferred to tuberculosis.....	1
Refused care .....	2
Carried .....	73

## INDUSTRIAL NURSING WORK

Industrial Nurse began work at Coleman Lamp Co., Oct. 15, 1919.  
Half time service.

No. of cases.....	141
Hours in plant.....	140
Nursing calls .....	147
Business and investigation calls.....	250

## One Health Talk Given to Girls in Factory

The work consists of daily visits to all departments talking with operators, watching men work, an inspection of plant with suggestions as to ventilation, sanitation and "Safety First."

The first aid cabinets have been removed from the various departments and a central first aid room equipped. All absentees are investigated and an individual personal record kept for each employee.

## GENERAL SUMMARY OF ALL ACTIVITIES

Total cases.....	1281
Total calls.....	9606
Disposal of cases—	
Recovered .....	768
Died .....	54
Hospital .....	31
Other nurses.....	12
Improved .....	12
Unimproved .....	3
Children's home.....	1
Sanitorium .....	14
Refused care.....	3
Moved .....	62
County Tuberculosis nurse.....	62
Lansing .....	7
Carried .....	283

## Fees received—

Metropolitan Insurance Co.....	\$545.50
Other fees .....	179.05
Total .....	\$724.55

## STAFF FOR 1919

Mrs. Zula L. Powell.....	Supervisor of Nurses
Miss Annie Lee Washbon.....	Supervisor of Industrial Nurses
Mrs. Oressa M. Knee.....	Infant Welfare Nurse
Miss Emma M. McDonald.....	Communicable Disease Nurse
Mrs. Margaret Merrill.....	Tuberculosis Nurse
Mrs. Irene Kimel.....	Visiting Nurse
Miss Emily Morgan.....	Visiting Nurse
Miss Hertha Guiney.....	Student Nurse (Wichita Hospital)

## METROPOLITAN LIFE INSURANCE CO. WORK.

Number of cases handled.....	255
Number of calls made.....	1091
Amount of Fees received \$545.50.	



## CO-OPERATING ORGANIZATIONS

Associated Charities.  
 Metropolitan Life Ins. Co.  
 Masonic Home.  
 Police Matron.  
 Board of Health.  
 County Matron.  
 County Commissioner of Pocr.  
 County Physician.  
 Private Physicians.  
 Home Service American Red Cross  
 Kansas State Tuberculosis Association.  
 Kansas State Board of Health.  
 Board of Education.  
 School Nurse.  
 Child Welfare Parent-Teacher Association.  
 Baby Camp.  
 Fire Chief.  
 Christian Service League.  
 Military Sisterhood.  
 County Tuberculosis Sanitorium.  
 Kansas Gas & Electric Co.  
 Child Welfare Com. League Women Voters.  
 Nurse Committee of the Federation of  
     Women's Clubs.  
 Wichita Hospital.

## MEMBERS AND CONTRIBUTORS

## Active Memberships

Andrews, Mrs. Chas.	Chain, Fred
Andrews, Hoyt	Conway, Mrs. T. F.
Ambrose, Dr.	Cohn, S. H.
Adams, Lowe	Cloud, Mrs. Henry
Allen, Henry Ware	Caussem, Max
Arnold Auto Co.	Claiborne, E. C.
Alexander, J. E.	Campbell, Robt.
Alexander, Dr. T. F.	Cleapman, C. N.
Adams, A. J.	Capper Engraving Co.
Alvey, W. B.	Combs, Mrs. L. M.
Ambrose, Mrs. R. D.	Crossfield, M. J.
Avey, C. O.	Caswell, Dr. C. E.
Arbuckle, Frank	Cunningham, Lucile
Baker, Chas. A.	Chipps, Mrs. J. E.
Brier, S. C.	Campbell, J. J.
Bassett, George	Caldwell, Mrs. Jane
Braitsch's Shoe Store	Cocking, J. H.
Brown, Nell	Clark, C. M.
Butler Sheet Metal	Collins, Dr. Alice
Bond, S. G.	Crews, Mrs. Olive
Bosworth, F. T.	Cadenback, Mrs.
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NOTE : The scarcity of certificates, records, maps, etc., in this appendix is due to the fact that my colleague, Mr. H. D. H. Brown wished very much to complete and save the carbon copy of his Survey--the duplicates were given to him for this purpose. The reader is therefore referred to his survey for further details. There also one will find many more photographs of local interest but of insufficient scientific value for inclusion here.



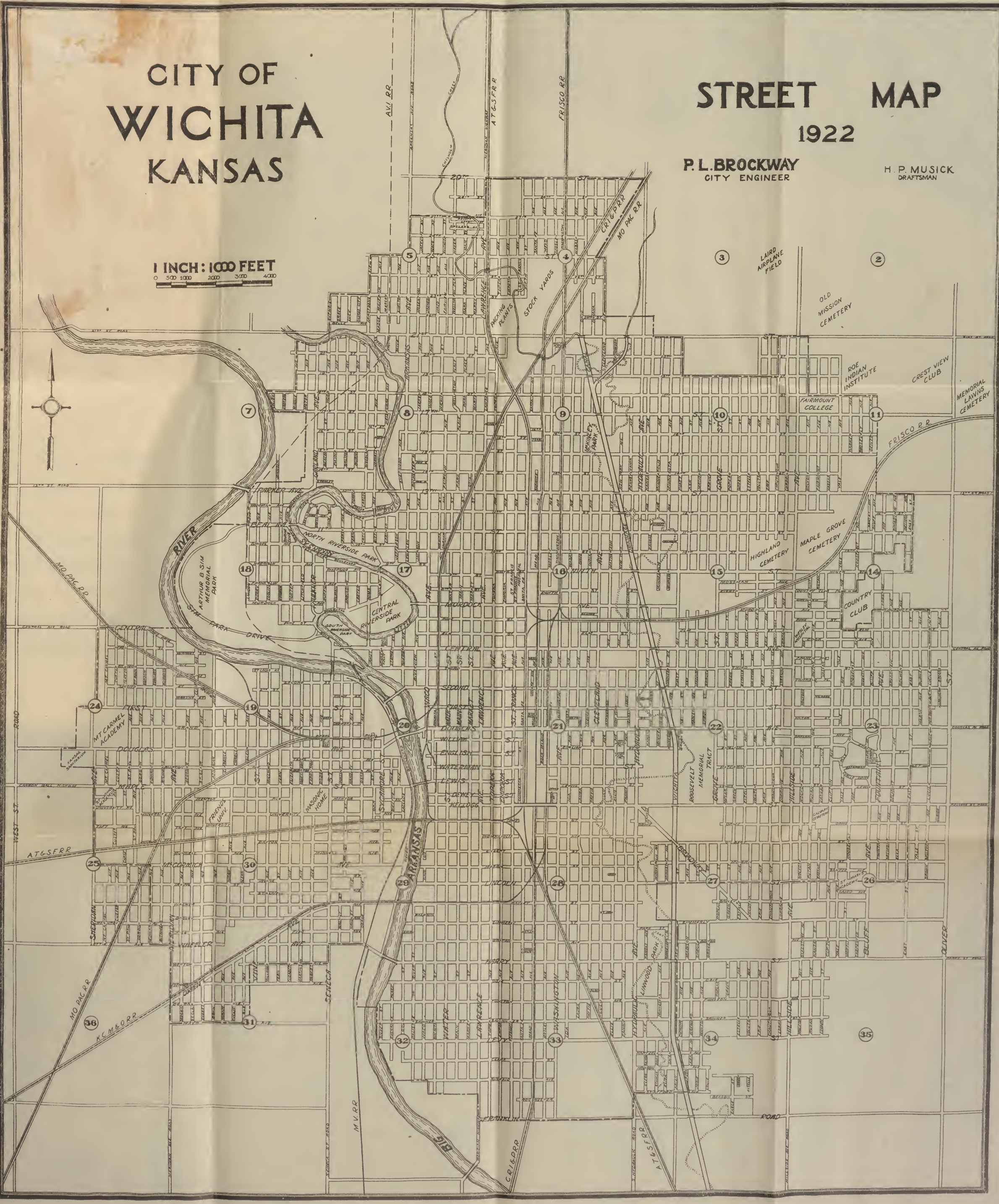
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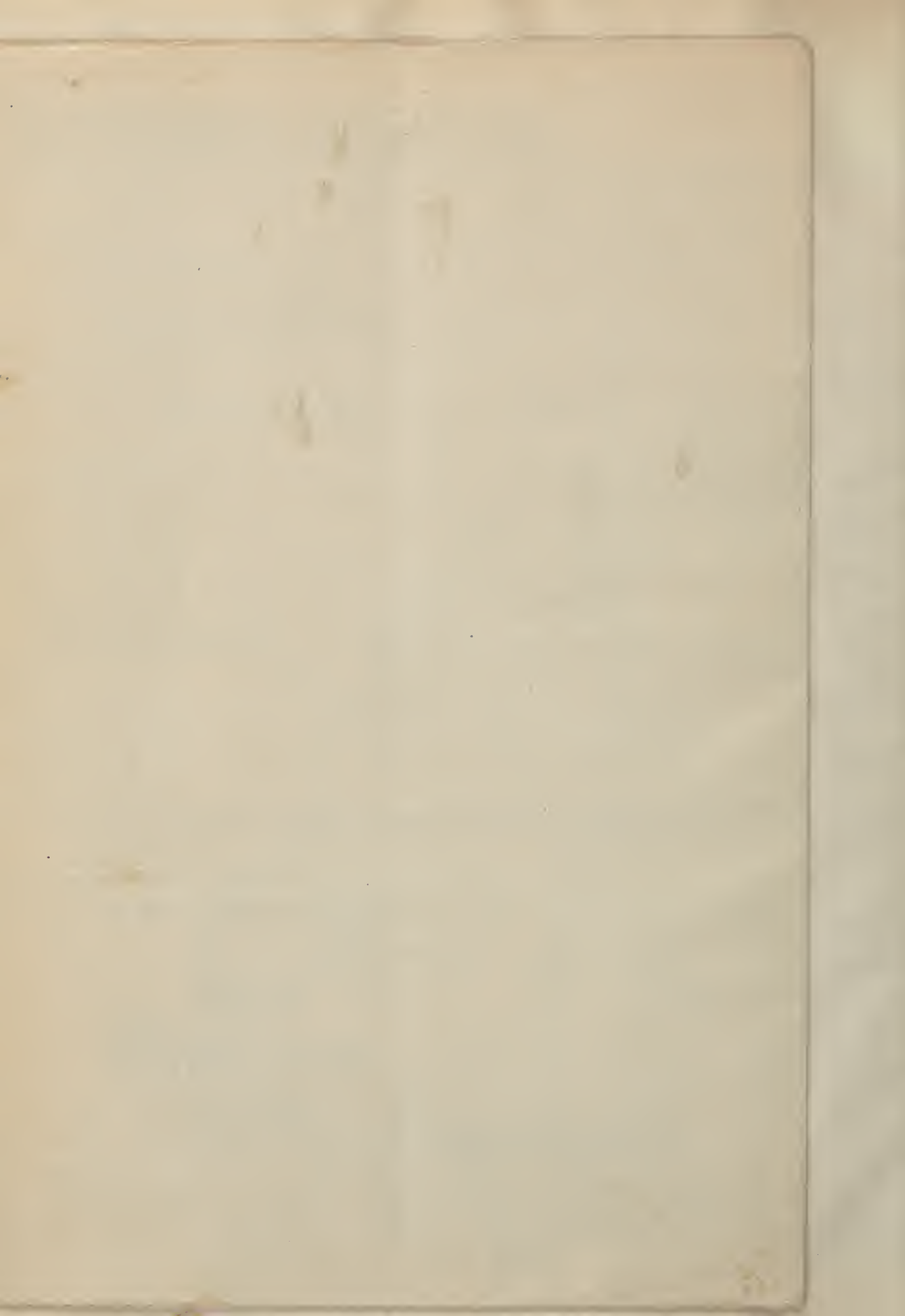
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